

County Council of Shropshire.

REPORT

BY THE

COUNTY MEDICAL OFFICER OF HEALTH

ON THE

**VITAL STATISTICS AND SANITARY CONDITION
OF SHROPSHIRE**

DURING THE YEAR 1905,

INCLUDING A

**SUMMARY OF THE ANNUAL REPORTS OF THE DISTRICT MEDICAL
OFFICERS OF HEALTH, AND A REPORT ON THE ADMINISTRATION
OF THE MIDWIVES ACT.**

JAMES WHEATLEY, M.D., D.P.H.

SHREWSBURY,

July, 1906.

TO THE CHAIRMAN AND MEMBERS OF THE SANITARY
COMMITTEE OF THE SHROPSHIRE COUNTY
COUNCIL

GENTLEMEN,

I have the honour to present my Annual Report for 1905.

The general arrangement of previous reports has been continued in the present one. The second part of the report is a condensed summary of the reports for the various districts. In the first part each subject is dealt with as affecting the whole County.

A short report is given on the administration of the Midwives Act.

I am, Gentlemen,

Your obedient Servant,

JAMES WHEATLEY.

COUNTY HEALTH OFFICE,

TALBOT CHAMBERS,

July, 1906.

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PART 1.

THE ADMINISTRATIVE COUNTY.

POPULATION.

The population for the whole Administrative County was in 1891, 236,827, and in 1901, 239,783. In 1901 the total population of the urban and rural districts, containing a small part of Staffordshire, was 240,606, and it is estimated to be 241,916 in the middle of 1905. This is the population on which the county rates are calculated.

The populations on which the district rates are calculated are those estimated from local knowledge by the Medical Officers of Health. In some of the districts corrections of the population have been made on account of the public institutions.

The population of the Registration County is estimated at the middle of 1905 to be 261,353. It includes certain small portions of the Administrative Counties of Chester, Flint, Denbigh, Montgomery, Hereford, Worcester and Stafford. It does not, however, include certain portions of the Administrative County of Salop, which are situated in the Registration Counties of Montgomery, Radnor, Worcester, and Stafford.

The registration county is the area used by the Registrar-General for his mortality statistics relating to this county. It is also the area used by the Local Government Board for vaccination statistics.

In this report the statistics refer to the Administrative County unless stated otherwise.

Table 1.
POPULATION, &C., IN URBAN AND RURAL DISTRICTS.

URBAN DISTRICTS.	Inhabited houses.			Population.				
	1891	1901	Average No. of personsto each house	1891	1901.			Percentage, Increase or Decrease between 1891 & 1901.
					Males.	Females	Total.	
Bishop's Castle ..	361	354	3·9	1586	666	712	1378	— 13·1
Bridgnorth ..	1215	1300	4·6	5865	2791	3261	6052	+ 3·2
Church Stretton ..	131	147	5·5	770	399	417	816	+ 5·9
Dawley ..	1523	1633	4·6	6996	3940	3582	7522	+ 7·5
Ellesmere ..	392	425	4·5	1830	868	1077	1945	+ 6·2
Ludlow ..	959	1372	4·6	4460	3065	3308	6373	+ 2·0
Newport ..	714	720	4·5	3403	1518	1723	3241	— 4·7
Oakengates ..	2117	2187	4·9	10680	5739	5167	10906	+ 2·0
Oswestry ..	1778	2083	4·6	8496	4507	5072	9579	+ 12·7
Shrewsbury ..	5600	6065	4·6	26967	13423	14972	28395	+ 5·3
†Wellington ..	1284	1327	4·7	5909	3049	3234	6283	+ 6·3
Wem ..	406	453	4·7	1878	987	1162	2149	+ 14·4
Wenlock ..	3447	3568	4·4	15703	7998	7868	15866	+ 1·0
Whitchurch ..	1006	1129	4·6	4930	2476	2745	5221	+ 5·9
All Urban Districts	20933	22763	4·5	99473	51426	54300	105726	+ 4·4*
RURAL DISTRICTS.								
Atcham ..	4264	4329	4·8	21144	10314	10581	20895	— 1·1
Bridgnorth ..	1934	1886	4·5	9185	4200	4373	8573	— 6·6
Burford ..	277	263	4·6	1361	600	633	1233	— 9·4
Chirbury ..	899	812	4·3	4084	1796	1743	3539	— 13·3
Church Stretton ..	1019	1005	4·4	4631	2242	2237	4479	— 3·3
Cleobury Mortimer	1251	1292	5·2	5911	3717	3003	6720	+ 13·6
Clun ..	1585	1487	4·5	7459	3429	3395	6824	— 8·5
Drayton ..	2613	2655	4·4	11969	5703	6005	11708	— 2·1
Ellesmere ..	1649	1658	4·7	8119	3963	3948	7911	— 2·5
Ludlow ..	2242	2003	4·7	10863	4904	4681	9585	+ 5·0
Newport ..	1302	1284	4·7	6327	3071	2962	6033	— 4·6
Oswestry ..	3213	3220	4·5	15107	7357	7370	14727	— 2·5
†Shifnal ..	1923	1918	4·6	9120	4335	4509	8844	— 3·0
Teme ..	388	388	4·7	1870	970	876	1846	— 1·3
‡Wellington ..	2271	2499	4·7	10780	6000	5773	11773	+ 9·2
Wem ..	1801	1840	4·4	8241	4119	4147	8266	+ 0·3
Whitchurch ..	423	424	4·5	2031	956	968	1924	— 5·2
All Rural Districts	29054	28963	4·6	138202	67676	67204	134880	— 1·08

* The 1901 figures for Ludlow Borough include the additions made in November, 1901, and the same numbers have been deducted from the Ludlow Rural District, viz., 385 inhabited houses, 894 males and 927 females. The percentage increase or decrease has been calculated without these additions and deductions.

† This district (Shifnal) includes 184 inhabited houses, 427 males and 396 females in the administrative County of Stafford.

‡ The population of the added part of Wellington, about 827, has not been transferred in this table from the Rural to the Urban District.

URBAN DISTRICTS.			RURAL DISTRICTS.		
Age period.	Total.	Percentage at each age period.	Total.	Percentage at each age period.	
Under 1	2462	2·4	2965	2·2	
1—5	9255	8·9	12171	8·9	
5—10	11094	10·7	15176	11·2	
10—15	10818	10·4	14275	10·5	
15—25	19671	18·9	22940	16·9	
25—35	15508	14·9	18610	13·7	
35—45	12132	11·7	16007	11·8	
45—55	9337	9·0	12743	9·4	
55—65	7234	7·0	10719	7·9	
65—75	4522	6·1	7033	7·6	
75—85	1680		2859		
85—95	189		373		
95 and upwards.	3		7		
	<u>103905</u>		<u>135878</u>		

As previously pointed out, Table 2 shows that the percentage of persons between the ages of 15 and 35 in urban districts is considerably in excess of that in rural districts.

This difference in the distribution of the population necessarily influences the death-rates apart from any consideration of health conditions. In order to compare one district with another, or one district with the whole county, it is necessary to prepare factors of correction which remove the disturbing influence due to unequal distribution of age and sex. The factor for correcting the rates of the Registration County of Salop is ·8654, that for the Administrative County is ·8918, that for the Combined Urban Districts is ·9353, and that for the Combined Rural Districts is ·8622.

These figures have been applied to Table 5 in order to correct the crude death-rates. It will be seen by reference to this Table that the corrected rates are very considerably lower, especially in the rural districts, than the crude rates.

In order to have quite comparable figures, factors of correction should be worked out for each disease. Disease rates in this County thus corrected would, as a rule, be lower than the crude rates, especially in the rural districts, and this is very markedly so in the case of cancer. On the contrary the phthisis rate in the rural districts would be slightly increased by the correction.

MARRIAGES.

The number of marriages in the Registration County for 1905 was 1823, giving a rate of 13·9, compared with 13·2 in 1904, 13·4 in 1903, 14·2 in 1902.


BIRTHS.

Table 3.

	Births to 1000 Living.						Illegitimate Births to 1000 Births.						Males Born to 1000 Females Born.					
	Ten Years. 1890-1899.	1900	1901	1902	1903	1904	Ten Years 1890-1899.	1900	1901	1902	1903	1904	Ten Years 1890-1899.	1900	1901	1902	1903	1904
Shropshire (Registration County)	26·8	25·7	26·2	26·5	26·1	26·2	72	62	59	60	64	67	1034	1032	1001	1021	1029	1033
England and Wales ...	30·0	28·7	28·5	28·6	28·4	27·9	42	40	40	39	39	40	1036	1033	1039	1039	1035	1037

I. (URBAN). STATISTICS FOR 1905.

URBAN DISTRICTS.	Estimated Population 1905	Number of Births.	Birth- rate.	DEATHS UNDER 1 YEAR OF AGE.		DEATHS AT ALL AGES.		Death-rates after correction for deaths of non- residents dying in the district, and of residents dying outside.	DEATH-RATES FROM VARIOUS CAUSES.							
				Number.	Rate per 1000 Births.	Number	Death- rate.		Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tuber- cular Diseases	Bron- chitis.	Pneu- monia.	Heart Diseases	Cancer.
Bishop's Castle	1340	34	25·8	5	147	25	18·7	18·2	1·5	·76	1·5	·0	·0	·0	1·3	·76
Bridgnorth	6052	147	24·3	8	54	117	19·3	17·5	·66	·0	·82	·99	1·3	1·9	1·1	1·4
Church Stretton	1400	22	16·5	4	182	18	12·8	14·2	·0	·75	·75	·0	·75	1·5	3·0	2·2
Dawley	7650	268	34·9	20	75	95	12·4	13·9	·26	·13	·65	·13	1·2	2·1	·78	·78
Ellesmere	1980	47	23·7	4	85	39	19·7	12·6	·0	·50	·0	·50	·0	2·0	2·0	1·0
Ludlow	6570	164	24·9	18	110	103	15·6	15·2	·15	·0	1·2	·30	2·4	·61	2·6	1·2
Newport	3199	83	26·5	6	72	56	17·5	16·6	·64	·0	·96	·0	3·2	1·6	1·6	1·6
Oakengates.. ..	11019	342	31·0	43	125	160	14·5	15·0	1·7	·09	·63	·36	1·2	1·7	1·6	·72
Oswestry	9950	273	27·4	26	95	142	14·2	15·7	·70	·50	1·0	·60	1·0	1·0	2·4	·70
Shrewsbury	29111	700	23·8	76	108	441	15·1	15·3	·58	·48	1·1	·07	1·5	1·4	2·1	1·3
Wellington	7500	223	29·7	25	112	134	17·8	15·7	2·0	·0	·66	·66	·93	1·1	·80	1·3
Wem	2226	52	23·3	5	96	36	16·1	15·3	·44	·89	·44	1·3	·89	1·3	2·7	·0
Wenlock	15904	434	27·3	34	78	239	15·0	14·9	·63	·38	1·5	·63	1·3	·88	1·6	1·3
Whitchurch	5344	144	27·2	14	97	65	12·2	12·3	·38	·57	·94	·0	1·5	·19	·94	·38
Whole of Urban Districts	108496	2933	27·0	288	98	1670	15·4	.	·75	·32	1·0	·37	1·3	1·3	1·8	1·1
Whole of Urban and Rural Districts	241916	6255	25·8	582	93	3606	14·9		·64	·27	·96	·32	1·1	1·1	1·9	1·0



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I. (RURAL). STATISTICS FOR 1905.

RURAL DISTRICTS.	Estimated Population 1905	Number of Births.	Birth- rate.	DEATHS UNDER 1 YEAR OF AGE.		DEATHS AT ALL AGES.		Death-rates after correction for deaths of non- residents dying in the district, and of residents dying outside.	DEATH-RATES FROM VARIOUS CAUSES.							
				Number.	Rate per 1000 Births.	Number.	Death- rate.		Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tuber- eular Diseases.	Bron- chitis.	Pneu- monia.	Heart Diseases	Cancer.
Ateham	20820	463	23·3	40	87	397	19·1	14·3	·60	·25	·96	·3	·96	·86	1·6	1·4
Bridgnorth	8600	224	26·0	16	71	103	12·0	13·2	·0	·0	1·0	·23	·81	·93	2·1	·46
Burford	1233	33	26·7	3	90	15	12·1	12·9	·0	·0	1·6	·0	·81	·0	·81	1·6
Chirbury	3540	74	20·9	3	40	40	11·3	12·1	·28	·84	1·7	·0	1·4	·28	1·9	·84
Church Stretton	4430	96	21·4	7	73	67	15·1	16·9	·44	·89	·89	·0	·67	·89	2·4	1·3
Cleobury Mortimer ..	6450	174	26·9	9	51	83	12·8	12·8	·93	·0	·46	·46	·77	1·7	2·4	·62
Clun.. ..	6660	168	25·1	19	113	95	14·3	15·4	·89	·15	·59	·0	1·0	·30	2·7	·59
Drayton	11602	306	26·3	27	88	166	14·3	14·5	·60	·34	·77	·60	1·2	·86	2·3	·34
Ellesmere	7900	186	23·5	23	123	102	12·9	14·5	·50	·38	1·1	·50	·63	1·2	2·5	·63
Ludlow	9535	247	25·9	19	76	122	12·7	13·5	·63	·10	·42	·10	·63	·73	·94	·94
Newport	6036	164	27·0	19	116	69	11·4	13·2	·66	·50	·50	·16	1·3	·66	1·5	·99
Oswestry	14900	420	28·1	51	121	263	17·6	16·8	·20	·40	1·2	·40	1·1	1·0	2·5	1·1
Shifnal	8800	209	23·7	10	47	132	15·0	14·7	·68	·0	·57	·57	1·5	·34	2·7	1·1
Teme	1846	40	21·6	3	75	28	15·1	16·2	·0	·0	2·1	·0	1·1	1·1	2·1	3·2
Wellington	11320	279	24·7	31	111	139	12·3	14·7	1·4	·0	1·0	·09	·8	1·5	1·9	1·3
Wem	8265	197	23·8	10	50	91	11·0	11·9	·12	·12	1·3	·0	·60	·84	1·7	·60
Whitechurch	1902	42	21·9	4	95	24	12·6	13·5	·0	·0	·52	1·0	·52	1·0	3·1	1·5
Whole of Rural Districts	133420	3322	24·9	294	88	1936	14·5		·55	·23	·92	·28	·94	·90	2·0	·98
Whole of Urban and Rural Districts	241916	6255	25·8	582	93	3606	14·9		·64	·27	·96	·32	1·1	1·1	1·9	1·0

The question of the declining birth-rate of the country is receiving considerable attention from many quarters, as it is recognised that on the maintenance of the birth-rate and particularly the maintenance of a considerable excess of births over deaths, depends the future of the nation. It would be out of place here to enter into the various causes of the decline, but it is desirable that the figures with regard to this county should be properly analysed and interpreted so that we shall know their significance.

From the above Table (No. 3) it appears that the birth-rate of Shropshire is consistently below that of the rest of the country to an extent of 8—10 %. In my last Annual Report I stated my opinion that this was entirely due to a difference in age distribution. It is quite obvious that the total population is not the number on which the birth-rate should be calculated, for in a district consisting principally of children and old persons the birth-rate might be quite normal and yet only reach a very small figure. Probably the most accurate method of comparing birth-rates is by basing them on the number of females between 15 and 45, the active child-bearing period, living in the district. Even with this method there are some fallacies which are, however, of little moment and may be left out of account.

The following rates are calculated in this manner :—

	Birth-rate per 1,000 females between ages of 15 and 45.
England and Wales, 1905	111
Shropshire Administrative County, 1905	118
Shropshire Urban Districts, 1905	116
Shropshire Rural Districts, 1905	119

Estimated in this manner not only is the Shropshire birth-rate not below that of the Country generally but it is more than 6% above.

The birth-rates of the various districts are shown on Table I (Urban and Rural.)

The highest rates are again those of Dawley (34.9) and Oakengates (31.0). The rate for the Combined Urban Districts was 27.0 and that of the Combined Rural Districts, 25.4.

If, however, the rates are calculated on the basis of the females living between 15 and 45 years of age, the results are in many respects very different.

Table 4.
BIRTH-RATES, 1905.
Calculated on the number of females living between 15 and 45.

URBAN DISTRICTS.						RURAL DISTRICTS.					
Bishop's Castle	..	..	..	..	119	Atcham	..	..	..	..	106
Bridgnorth	..	..	..	..	94	Bridgnorth	..	..	..	..	121
Church Stretton	..	..	..	..	58*	Burford	..	..	..	..	116
Dawley	..	..	..	..	191	Chirbury	..	..	..	..	106
Ellesmere	..	..	..	..	81	Church Stretton	..	..	..	..	108
Ludlow	..	..	..	..	103	Cleobury Mortimer	..	..	..	..	148
Newport	..	..	..	..	108	Clun	..	..	..	..	125
Oakengates	..	..	..	..	166	Drayton	..	..	..	..	118
Oswestry	..	..	..	..	110	Ellesmere	..	..	..	..	105
Shrewsbury	..	..	..	..	94	Ludlow	..	..	..	..	122
Wellington	..	..	..	..	121	Newport	..	..	..	..	138
Wem	..	..	..	..	98	Oswestry	..	..	..	..	143
Wenlock	..	..	..	..	130	Shifnal	..	..	..	..	104
Whitchurch	..	..	..	..	107	Teme	..	..	..	..	108
						Wellington	..	..	..	..	124
						Wem	..	..	..	..	114
						Whitechurch	..	..	..	..	97
Combined Urban Districts						..	..				116
Combined Rural Districts						..	..				119

* Figures not very reliable owing to expansion of District since 1901 Census.

The results obtained by this method of estimation will be seen to be very different from those where the total population is used as a basis for calculation. The rural districts, as a whole, have a higher instead of a lower rate. Amongst the urban districts those of a semi-rural and manufacturing character have far the highest rates, viz.: Dawley, Oakengates, and Wenlock.

It is perfectly clear that the birth-rates as usually stated have not much meaning, and that for the purpose of comparison of districts with one another or with the whole country, the age distribution of the population must be taken into account.

DEATHS.

The number of deaths in the County was 3,606, compared with 3,808 in 1904, and 3,576 in 1903.

Table 5.

CRUDE AND CORRECTED DEATH RATES.

URBAN AND RURAL DISTRICTS OF SHROPSHIRE AND ENGLAND AND WALES.

Period.	Shropshire		England and Wales.	Urban Districts of Shropshire		Urban Counties of England and Wales	Rural Districts of Shropshire		Rural Counties of England and Wales.
	Crude Rates.	† Corrected Rates.		Crude Rates.	† Corrected Rates.	† Corrected Rates.	Crude Rates.	† Corrected Rates.	† Corrected Rates.
1905	14.9	13.4	15.2	15.4	14.4	*	14.5	12.5	*
1904	15.7	14.0	16.2	16.6	15.5	17.9	15.1	13.0	13.5
1903	14.8	13.2	15.4	15.8	14.7	16.99	14.3	12.3	12.88
1902	15.1	13.4	16.3	16.7	15.6	17.8	13.9	11.9	13.7
1901	15.5	13.8	16.9	16.2	15.1	17.7	15.0	12.9	15.3
1900	16.4	14.6	18.2	17.7	16.5	18.9	15.5	13.3	16.6

* These figures are not yet available.

† These are the rates of mortality that would result if the age and sex constitution of the population of the districts were identical with those of the population of England and Wales at the Census, 1901.

TABLE V. (URBAN).
 INFANTILE MORTALITY DURING THE YEAR 1905.
 DEATHS FROM STATED CAUSES IN WEEKS AND MONTHS UNDER ONE YEAR OF AGE.

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
Small-pox .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken-pox .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	2
Scarlet Fever	1	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	2
Diphtheria .. .. .	..	..	..	..	..	..	..	..	..	..	..	1	..	1	1	..	3
Whooping Cough .. .. .	..	..	..	..	..	..	..	1	1	1	2	1	..	..	..	..	6
Diarrhoea .. .. .	..	1	..	..	1	3	1	6	2	2	1	1	2	..	1	1	21
Enteritis .. .. .	..	1	..	..	1	1	3	2	..	1	1	..	1	..	..	..	10
Gastritis,Gastro-intestinal Catarrh .. .. .	..	..	1	..	1	2	1	..	1	1	2	..	..	..	1	..	9
Premature Birth	31	5	1	1	38	1	2	1	..	1	..	2	..	..	..	..	45
Congenital Defects	3	..	..	..	3	1	3	..	..	..	..	..	..	..	..	..	7
Injury at Birth .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Want of Breast Milk .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Atrophy	8	6	6	3	23	9	6	4	4	..	..	..	2	1	1	..	50
Tuberculous Meningitis .. .. .	..	..	..	..	..	..	..	..	..	1	..	..	..	1	1	1	4
Tuberculous Peritonitis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other Tubercular Diseases .. .. .	..	..	1	..	1	..	1	..	..	..	1	..	..	..	..	..	3
Erysipelas .. .. .	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	1
Syphilis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rickets .. .. .	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	2
Meningitis .. .. .	..	..	..	..	..	..	2	..	..	..	1	1	..	..	..	..	4
Convulsions	7	3	6	3	19	4	1	3	2	1	1	..	..	..	1	1	33
Bronchitis .. .. .	..	..	3	..	3	5	1	2	..	2	1	..	1	1	1	..	17
Laryngitis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Pneumonia .. .. .	..	..	..	3	3	2	1	4	1	4	2	3	1	4	..	5	30
Suffocation	1	..	..	..	1	1	1	..	..	..	1	..	..	..	..	..	4
Other Causes	4	4	..	1	9	6	..	1	2	..	1	..	1	..	3	..	23
TOTALS	55	20	18	12	105	36	23	25	13	14	14	9	8	9	11	9	276

TABLE V. (RURAL).
 INFANTILE MORTALITY DURING THE YEAR 1905.
 DEATHS FROM STATED CAUSES IN WEEKS AND MONTHS UNDER ONE YEAR OF AGE.

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 1 Month.	1-2 Months.	2-3 Months.	3-4 Months.	4-5 Months.	5-6 Months.	6-7 Months.	7-8 Months.	8-9 Months.	9-10 Months.	10-11 Months.	11-12 Months.	Total Deaths under One Year.
Small-pox .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken-pox .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles .. .. .	..	..	..	..	..	1	..	..	..	..	..	..	1	1	..	1	4
Scarlet Fever .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria .. .. .	..	..	..	..	..	1	1	..	..	..	..	..	..	1	..	1	4
Whooping Cough .. .. .	..	..	..	..	..	2	..	..	..	..	2	..	1	2	..	..	7
Diarrhœa .. .. .	..	..	2	1	3	2	1	..	..	1	1	1	2	..	..	1	12
Enteritis .. .. .	..	..	1	1	2	..	1	..	..	1	1	1	..	..	..	1	7
Gastritis, Gastro-intestinal Catarrh .. .. .	..	..	1	..	1	1	1	1	2	1	1	..	..	1	..	..	9
Premature Birth	41	8	3	2	54	8	1	..	..	..	..	1	..	..	..	..	64
Congenital Defects	2	1	1	..	4	1	..	..	..	..	..	..	..	..	..	..	5
Injury at Birth	4	..	1	..	5	..	..	..	..	..	..	..	..	..	..	..	5
Want of Breast Milk .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Atrophy	14	5	3	4	26	8	5	4	2	1	3	1	1	..	..	..	51
Tuberculous Meningitis .. .. .	..	..	..	..	..	..	..	..	1	1	..	..	..	2	1	1	6
Tuberculous Peritonitis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1
Other Tubercular Diseases .. .. .	..	..	..	..	..	1	..	..	..	..	..	1	..	..	1	..	3
Erysipelas .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Syphilis .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Rickets .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Meningitis .. .. .	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1	3
Convulsions	8	1	5	1	15	3	..	2	..	..	..	1	1	2	..	..	24
Brachitis .. .. .	..	2	2	1	5	2	5	4	3	..	1	3	1	1	1	..	26
Laryngitis .. .. .	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1
Pneumonia .. .. .	..	..	1	2	3	3	4	4	2	3	2	4	5	1	2	3	36
Suffocation .. .. .	..	..	..	..	..	..	1	2	..	..	..	..	..	..	..	1	4
Other Causes	12	..	3	..	15	1	3	1	1	2	..	1	..	1	..	..	25
TOTALS	81	17	23	12	133	34	23	19	11	10	11	15	13	12	6	10	297

In the above Table the figures for the whole County of Shropshire should be strictly compared with those of the rural counties of England and Wales.

The deaths in the public institutions have been distributed so far as possible, amongst the districts to which they belong, with the result that fairly correct death-rates have been obtained. The total number of deaths deducted from the various districts was 293, and the number added was 260, the final result being a reduction of the total deaths by 33. The weak point in this correction is that we do not hear of all the deaths of Shropshire residents occurring in public institutions outside the county. Although these omissions will not be sufficient to appreciably affect the general death-rate they may be sufficient to appreciably affect the death-rate of a disease like cancer, which is treated to such a considerable extent in the large hospitals.

The death-rate, 14·9, is considerably less than that of the previous year, and with one exception is the lowest on record.

The highest death-rates were in Bishop's Castle 18·2, Bridgnorth Urban 17·5, Church Stretton Rural 16·9, Oswestry Rural 16·8, and Newport Urban 16·6.

INFANTILE MORTALITY.

Owing to the Local Government Board having issued a new Table for the use of Medical Officers of Health (Table V.), we have for the first time detailed information of the deaths under one year of age throughout the county. The Table has been very carefully drawn up and it must prove of the greatest advantage in studying this most important branch of mortality statistics.

On Table 1., Urban and Rural, are given the infantile deaths and death-rates of the various districts. The rate for the whole county was 93, that of the combined urban districts 98, and that of the combined rural districts 88.

The infantile death-rate for the county for 1904 was 115, and for 1903, 100. The rate for England and Wales for 1905 was 128, and excluding 217 large towns, 113.

With regard to the various districts it will be observed that with the exception of Bishop's Castle and Church Stretton Urban Districts, in which the numbers for a single year are too small for statistical purposes, there were no very excessive death-rates. The highest were Oakengates (125), Ellesmere Rural District (123), and Oswestry Rural District (121).

Although the infantile death-rates for the year must be considered satisfactory, compared with the rates of previous years and compared with the rates of the country as a whole, a study of Table V. shows that a considerable proportion of the deaths are from preventable causes and would be prevented by the exercise on the part of the mother of intelligent care in the feeding and management of the infant and of proper care of her own health previous to confinement. It will be useful as giving some indication of the scope of future sanitary work in this direction to arrange the more obviously preventable deaths according to their principal causes.

Infantile deaths, of which a considerable proportion were no doubt due to errors of feeding:—

	URBAN DISTRICTS.	RURAL DISTRICTS.	WHOLE COUNTY.
Diarrhœa, all forms	21	12	33
Enteritis (not tuberculous)	10	7	17
Gastritis and Gastro-intestinal Catarrh	9	9	18
Atrophy, Debility, Marasmus	50	64	114
Convulsions	33	22	55
Total	123	114	237

Infantile deaths, a considerable proportion of which are due to improper clothing, exposure to cold, exposure to infection, and general want of attention to the laws of health :—

					URBAN DISTRICTS.	RURAL DISTRICTS.	WHOLE COUNTY.
Infected Diseases	..	..	..	..	13	15	28
Bronchitis	..	..	..	..	17	28	45
Pneumonia	..	..	..	..	30	36	66
Total	..	..	..	..	60	79	139

Infantile deaths due to a great extent to a want of care on the part of the mother for her own health :—

					URBAN DISTRICTS.	RURAL DISTRICTS.	WHOLE COUNTY.
Premature Births	..	..	..	..	45	64	109

Besides these there were 17 deaths due to the various forms of tuberculosis. If these were due to tuberculous milk, their prevention, except by sterilisation of all the milk consumed, was not within the power of the mother.

The deaths from the various causes above enumerated form over 80% of the total deaths under one year of age. It is quite obvious, therefore, that although the very excessive infantile mortalities, such as are associated with crowded urban communities, where employment of married women in industries is very common, do not exist in this county, there is room for much good work in this direction.

The three lines of action that appear likely to bear the best fruit are :—

- (1) Education of the older girls in the Elementary Schools in the feeding and management of infants. This matter is at the present time under the consideration of the Education Committee.
- (2) Education of mothers in their own homes by lady health visitors, either voluntary or engaged by the County or District Councils. This work has been quite neglected in the County hitherto, with the exception of a small amount of visiting undertaken by the County Council Health Lecturer. Table V. shows that 24% of the total deaths under one year of age took place in the first week, and over 40% during the first month. Consequently if the houses where children have been born are to be visited before the children are already dead, there must be prompt registration of births. At the National Conference on Infantile Mortality recently held, a resolution was passed to the effect that notification of births should be given within two days to the Medical Officer of Health of the district in which they occur. It need hardly be pointed out that such notification would be of no use unless provision is made for visiting, teaching and helping the mothers, and that this in rural districts is a work of considerable dimensions.
- (3) Teaching the mothers by means of midwives. Little has been done so far in the preliminary work of instructing midwives with regard to infant feeding so that they may give proper directions to the mothers they attend. It is, however, one of the matters which should have attention in the immediate future. One may, I think, look forward with confidence to a considerable reduction in the mortality of infants when we have an intelligent body of midwives trained in the principles of infant feeding and management under the supervision of the County Councils.

The general sanitary matters bearing upon infantile mortality are dealt with under their respective headings, and of these the question of a clean milk supply is probably the most important.

II. (URBAN).

CAUSES OF, AND AGES AT, DEATH DURING YEAR 1905. IN THE URBAN DISTRICTS OF SHROPSHIRE.

CAUSE OF DEATH.	TOTAL DEATHS IN URBAN DISTRICTS IN AGE PERIODS.							CAUSES OF DEATH IN THE DIFFERENT URBAN DISTRICTS.													
	All Ages.	Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards.	Bishop's Castle.	Bridg-north.	Church Stretton	Dawley	Elles-mere.	Ludlow.	Newport	Oaken-gates.	Oswestry	Shrews-bury.	Wellington.	Wem.	Wenlock	Whit-church.
Smallpox .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	22	2	16	4	..	..	..	..	..	..	2	..	..	1	4	5	..	10	..	..	..
Scarlet Fever	5	2	3	..	..	..	..	..	..	..	..	..	..	..	3	..	..	1	..	..	1
Whooping Cough	10	6	4	..	..	..	..	..	2	..	..	..	..	..	4	1	1	1	1	..	..
Diphtheria and Membranous Croup ..	14	3	4	7	..	..	..	..	..	..	..	..	..	..	6	..	1	2	..	5	..
Croup	4	..	1	3	..	..	..	..	..	..	1	..	..	..	1	..	..	..	..	2	..
Typhus Fever .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	3	..	..	1	1	1	..	..	1	..	..	..	..	..	1	..	1	..	..	..	..
Continued Fever .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Epidemic Influenza	35	3	2	..	3	11	16	1	..	1	1	1	..	..	1	5	14	..	2	6	3
Cholera .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhœa	28	22	3	2	..	..	1	2	1	..	..	..	1	1	1	1	14	1	..	5	1
Enteritis	19	11	5	1	..	2	..	..	1	..	1	..	..	..	3	..	9	2	..	2	1
Puerperal Fever	4	..	..	..	1	3	..	..	..	..	..	..	..	..	..	..	..	..	..	1	2
Erysipelas	1	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	..
Other Septic Diseases	11	1	..	1	..	4	5	..	..	..	..	..	..	1	..	..	8	..	..	2	..
Phthisis	109	1	1	2	20	79	6	2	5	1	5	..	8	3	7	10	33	5	1	24	5
Other Tubercular Diseases	40	5	12	6	4	10	3	..	6	..	1	1	2	..	4	6	2	5	3	10	..
Cancer—Malignant Disease	119	..	..	..	..	69	50	1	9	3	6	2	8	5	8	7	39	10	..	19	2
Bronchitis	148	20	7	1	..	32	88	..	8	1	9	..	16	10	13	10	45	7	2	19	8
Pneumonia	141	30	28	2	7	44	30	..	12	2	16	4	4	5	19	10	43	8	3	14	1
Pleurisy	1	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..
Other Diseases of Respiratory Organs..	11	..	1	1	..	3	6	..	..	..	..	1	..	..	3	1	4	..	..	2	..
Alcoholism, Cirrhosis of Liver	17	..	..	..	..	13	4	..	..	..	1	1	2	1	1	3	5	2	..	1	..
Venereal Diseases.. .. .	2	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..
Premature Birth	43	43	..	..	..	..	..	1	1	1	2	1	5	2	4	7	7	6	..	3	3
Diseases and Accidents of Parturition	13	4	..	..	1	8	..	..	..	..	1	..	..	..	4	2	3	1	1	..	1
Heart Diseases	180	2	..	4	4	60	110	3	7	4	6	4	5	5	18	24	61	6	6	26	5
Accidents	48	5	3	5	3	15	17	..	8	..	6	..	4	2	3	2	10	4	1	5	3
Suicides	15	..	..	..	1	10	4	1	1	..	1	1	..	1	..	1	4	..	..	3	2
All other Causes	616	124	19	7	15	142	309	13	44	6	48	8	45	15	58	62	142	47	14	87	27
TOTAL	1659	284	109	47	62	508	649	24	106	19	107	25	100	52	166	157	449	118	34	237	65

II. (RURAL).

CAUSES OF, AND AGES AT, DEATH DURING YEAR 1905, IN THE RURAL DISTRICTS OF SHROPSHIRE.

CAUSE OF DEATH.	TOTAL DEATHS IN RURAL DISTRICTS IN AGE PERIODS.							CAUSES OF DEATH IN THE DIFFERENT RURAL DISTRICTS.																
	All Ages.	Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upwards.	Ateham.	Bridg-north.	Burford.	Chirbury	Church Stretton	Cleobury Mor-timer.	Clun.	Drayton.	Elles-mere.	Ludlow.	Newport	Oswestry	Shifnal	Teme	Wellington.	Wem.	Whit-church.
Smallpox .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	10	4	6	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	8	..	..
Searlet Fever	6	..	4	2	..	..	..	1	..	..	..	..	..	..	1	..	2	..	..	..	..	2	..	..
Whooping Cough	14	9	5	..	..	..	..	..	..	..	..	..	..	4	1	3	..	2	1	3	..	..	..	..
Diphtheria and Membranous Croup	22	1	4	13	1	3	..	7	..	..	1	1	2	1	3	..	3	1	1	2	..	..	..	..
Croup	4	2	2	..	..	..	..	1	..	..	..	..	..	2	..	..	..	1	..	..	..	..	..	..
Typhus Fever .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..
Continued Fever .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Epidemic Influenza	32	5	2	2	..	8	15	5	..	1	3	4	..	1	4	3	1	3	6	..	..	..	1	..
Cholera .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhoea	20	11	4	..	..	..	5	4	..	..	..	1	4	1	1	1	1	..	1	1	..	4	1	..
Enteritis	23	14	4	..	..	3	2	3	3	..	1	1	3	1	1	1	..	..	3	1	..	3	2	..
Puerperal Fever	2	..	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..
Erysipelas	6	..	..	..	..	3	3	..	..	..	..	1	..	..	..	..	..	..	3	..	..	1	1	..
Other Septic Diseases	13	..	1	2	1	6	3	4	1	..	..	..	..	..	1	..	..	..	..	5	..	..	1	1
Phthisis	123	4	2	2	24	82	9	19	9	2	6	4	3	4	9	9	4	3	18	5	4	12	11	1
Other Tubercular Diseases	38	10	8	8	6	3	3	6	2	..	..	..	3	..	7	4	1	1	6	5	..	1	..	2
Cancer—Malignant Disease	131	..	..	..	..	75	56	28	4	2	3	6	4	4	4	5	9	6	17	10	6	15	5	3
Bronchitis	126	25	8	..	..	15	78	19	7	1	5	3	5	7	14	5	6	8	16	13	2	9	5	1
Pneumonia	120	35	14	1	..	44	26	17	8	..	1	4	11	2	10	10	7	4	15	3	2	17	7	2
Pleurisy	5	1	..	..	..	..	4	1	..	..	..	1	..	1	..	..	..	1	1	..	..	..	..	..
Other Diseases of Respiratory Organs	9	1	..	..	..	5	3	3	..	..	..	..	..	..	..	..	..	..	1	2	..	1	2	..
Alcoholism. Cirrhosis of Liver	20	..	..	..	..	11	9	3	4	..	..	..	..	2	1	..	..	1	4	1	1	3	..	..
Venereal Diseases .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Premature Births	58	58	..	..	..	..	..	5	1	..	..	2	..	2	3	7	6	2	18	2	2	2	4	2
Diseases and Accidents of Parturition	12	3	..	..	1	8	..	2	1	..	..	..	..	..	..	1	2	..	2	1	..	1	1	1
Heart Diseases	274	1	..	3	3	87	180	31	18	1	7	11	16	18	27	20	9	9	37	24	4	22	14	6
Accidents	76	7	9	5	6	26	23	9	3	1	1	1	2	5	10	5	11	8	10	3	1	6	..	..
Suicides	13	..	..	..	..	11	2	3	..	..	..	2	2	..	1	..	2	1	1	1	..	..	..	..
All other Causes	756	108	20	16	18	155	439	112	53	8	15	34	28	48	70	43	65	27	90	47	8	57	44	7
TOTALS	1915	299	93	54	60	549	860	283	114	16	43	76	83	103	169	117	129	80	251	130	30	163	99	26

In most of his reports Dr. Gepp refers to the deaths which he considers might be prevented by care in feeding and management of infants, *e.g.*, in his report on the Borough of Wenlock he says, "Of the 34 infant deaths in the Borough last year 16 were due to digestive disturbances or wasting diseases, many of which it is probable could be prevented by the adoption of better principles of feeding and rearing." Again in his report on the Borough of Shrewsbury he says "Causes of death associated with imperfect methods of feeding and rearing of infants are found as usual to figure largely in the total. These include Diarrhoeal Diseases, 21 deaths; Atrophy, Debility, and Wasting, 11 deaths; Convulsions, 8 deaths. If these, which are the chief causes of infant deaths throughout the country, and which appear to be clearly preventable, were reduced, as no doubt they might be, by three-fourths, the infant mortality would at once sink to a figure which would cease to be a reproach to civilised life."

Dr. Howard-Jones in his report to the Chirbury Rural District Council calls attention to the difficulty of obtaining new milk for infant feeding, and I have reason to think that this is fairly general throughout the County. It is not easy off-hand to suggest a remedy, but I think the difficulty should not be insuperable.

Dr. Whitaker in his report on Oakengates attributes the lack of improvement in infantile mortality to defective infant feeding, and suggests teaching hygiene in the Elementary Schools and the employment of a parish nurse or health visitor as the proper remedies.

Anthropometric surveys which have been made in some of the London Schools seem to show that the bad influences causing an exceptionally high infantile mortality in any particular year also injuriously affect the physique of the survivors. This is demonstrated by the fact that the measurements and weights of children born in years of high infantile mortality fall more below the accepted standard than do those born in years of low mortality. Dr. Kerr, in his report to the London Education Committee, says, "It appears certain, therefore, that in years of high infantile mortality the conditions, to which one in five or six of the children born are sacrificed, have a maiming effect upon the other four or five." This is a matter that should be further investigated, for if definitely proved it disposes absolutely of the idea that harmful conditions by killing off the weakly has a tendency to improve the race.

CHIEF CAUSES OF DEATH.

Table 6.

	URBAN DISTRICTS. 1905		RURAL DISTRICTS. 1905		WHOLE COUNTY.				ENGLAND AND WALES 1904
	Deaths	Death-rates.	Deaths	Death-rates.	Deaths	Death-rates.	Deaths	Death-rates.	
Seven Chief Zymotic Diseases.. ..	81	·74	74	·55	155	·64	243	1·0	1·9
Phthisis	109	1·0	123	·92	232	·96	272	1·1	1·2
Other Forms of Tuberculosis	40	·37	38	·28	78	·32	98	·40	·54
Bronchitis	148	1·3	126	·94	274	1·1	262	1·1	1·2
Pneumonia	141	1·3	120	·90	261	1·1	286	1·2	1·3
Heart Disease	192	1·8	274	2·0	466	1·9	489	2·0	1·5
Cancer	119	1·1	131	·98	250	1·0	246	1·0	·87

The most striking feature in this Table is the great diminution in the number of deaths from tuberculosis and from the infectious diseases. There were very considerable decreases from all the diseases in the Table with the exception of bronchitis and cancer, and in these the increases were only slight. The death-rates were considerably below those of England and Wales for the preceding year for all the diseases except cancer and heart disease.

REGISTRATION COUNTY OF SHROPSHIRE.

AVERAGE ANNUAL DEATH-RATES PER MILLION, FOR CERTAIN DISEASES, IN GROUPS OF YEARS FROM 1856—1904.

Table 7.

PERIODS.	Small-pox.	Measles.	Scarlet Fever.	Diphtheria.	Whooping Cough.	Typhus Fever.	Enteric Fever.	Continued Fever.	Cancer.	Phthisis.
1856—1860	129	206	546	245	339	*	617	*	—	2306
1861—1870	112	277	548	232	298	*	644	*	—	2169
1871—1880	78	186	518	190	271	33	246	75	—	1640
1881—1885	10	147	323	207	244	8	168	17	626	1377
1886—1890	1	213	79	125	319	5	127	5	782	1359
1891—1895	3	163	132	209	240	1	92	0·7	847	1144
1896—1900	0·7	161	65	210	234	0	82	1	953	1028
1901—1904	4	181	54	114	268	0	31	0	1019	971

* In these years Typhus, Enteric and Continued Fevers were not differentiated.

This Table, the significance of which I pointed out somewhat fully in my last report, has been brought up to date so far as the reports of the Registrar-General allow.

The striking points are the increase of the death-rate from cancer and the decrease of that from phthisis; the very extraordinary decrease of the death-rates from scarlet fever and enteric fever; the very slight decrease in the rates from whooping cough and measles, and the comparatively slight decrease in the rate from diphtheria. The result is a complete reversal of the order of the diseases viewed from the number of deaths they cause. Whereas in the early years scarlet fever and enteric fever were the most fatal of the infectious diseases, now the most fatal of these diseases are whooping cough, measles, and diphtheria. To these diseases therefore should now be given much more careful attention.

INFECTIOUS DISEASES.

The death-rate from the seven common infectious diseases was ·64, compared with 1·0 in 1904, and compared with 1·52 in England and Wales in 1905.

The number of cases of each infectious disease in the various districts is given in Table III., (Urban and Rural).

III. (URBAN)
CASES OF INFECTION DISEASE NOTIFIED IN 1905 IN URBAN DISTRICTS

NOTIFIABLE DISEASES.	CASES IN URBAN DISTRICTS IN AGE PERIODS.							TOTAL CASES NOTIFIED IN EACH LOCALITY.													
	All Ages.	Age Periods.						1	2	3	4	5	6	7	8	9	10	11	12	13	14
		Under 1	1 and under 5	5 and under 15	15 and under 25	25 and under 65	65 and upward.	Bishop's Castle.	Bridgnorth.	Church Stretton.	Dawley.	Ellesmere.	Ludlow.	Newport.	Oakengates.	Oswestry.	Shrewbury.	Wellington.	Wem.	Wenlock.	Whitchurch.
Small-pox	2	..	..	..	..	1	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..
Cholera .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diphtheria	89	5	26	38	8	11	1	..	1	..	8	..	..	..	30	4	15	11	2	17	1
Membranous Croup ..	3	..	3	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	1	..
Erysipelas	50	2	1	3	5	33	4	1	..	..	5	1	2	1	5	..	16	6	1	10	2
Scarlet Fever	280	3	91	142	19	17	..	..	8	1	3	2	8	4	125	23	39	29	1	18	19
Typhus Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Enteric Fever	26	..	2	6	6	9	..	1	4	..	2	..	3	1	2	..	8	1	..	3	1
Relapsing Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Continued Fever .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal Fever	9	..	..	..	3	5	..	1	..	..	1	..	1	..	1	..	..	1	..	2	2
Plague .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
TOTAL	459	10	123	189	41	76	5	3	13	1	19	4	15	6	163	27	80	48	4	51	25
Measles .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phthisis .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Chicken-Pox .. ..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

The Ludlow cases are not entered in Age Periods.

III. (RURAL).

CASES OF INFECTIOUS DISEASE NOTIFIED IN 1905 IN RURAL DISTRICTS.

[illegible]

Table 8.

ANALYSIS OF DEATHS AND DEATH-RATES FROM THE COMMON INFECTIOUS DISEASES.

1905.

	Seven Chief Zymotic Diseases		Small-pox.		Scarlet Fever.		Typhoid Fever.		Diphtheria.		Measles.		Whooping Cough.		Diarrhœa.	
	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.	Deaths.	Death-rates.
Urban Districts ..	82	·75	0	·0	5	·05	3	·03	14	·13	22	·20	10	·09	28	·26
Rural Districts ..	74	·55	0	·0	6	·04	2	·01	22	·16	10	·07	14	·10	20	·15
Whole County ..	156	·64	0	·0	11	·05	5	·02	36	·15	32	·13	24	·10	48	·20
England & Wales ..	..	1·52	..	·0	..	·11	..	·09	..	·16	..	·32	..	·25	..	·59
Notifications			Cases.	Case Mortality per cent.	Cases.	Case Mortality per cent.	Cases.	Case Mortality per cent.	Cases.	Case Mortality per cent.						
Urban Districts ..	..	..	2	·0	280	1·7	26	11·5	92	15·2	..	..	..	..	..	..
Rural Districts ..	..	..	0	·0	368	1·6	23	8·7	114	19·2	..	..	..	..	..	..
Whole County ..	..	..	2	·0	648	1·7	49	10·2	206	17·4	..	..	..	..	..	..

SMALL-POX.—The County has been free from Small-pox except for single outbreaks at Ellesmere and Ludlow. The case at Ellesmere was in a tramp who had passed through several workhouses whilst in an infectious state. At Ellesmere Workhouse he was placed in a ward with twenty-seven other men and on the following day was placed in a cell by himself and seen by the Medical Officer. In commenting upon this case in my quarterly report I said “The seriousness of this case arises from the fact that it is possible for a tramp to go from workhouse to workhouse for several days whilst suffering from small-pox without this fact being discovered. If all tramps were bathed on admission, and a little care exercised this would be impossible.

At Ellesmere Workhouse, on account of the lack of accommodation, it is only possible to bathe a certain number each night, and the patient was not amongst the number. Otherwise the fact that he was suffering from small-pox would probably have been discovered in the evening and his contact with nearly thirty men, who by this time may have spread the disease to different parts of the country, would have been prevented.

Arrangements should be made by which all vagrants can be bathed on admission.”

I have not heard that the bathing accommodation has been improved.

So far as Shropshire was concerned there was no further spread, but as most of the persons who came into contact with the case were vagrants, cases may easily have arisen and their origin not discovered.

The case of small-pox at Ludlow was of obscure origin. The patient was removed to the hospital and there was no further spread.

SCARLET FEVER.—There were 11 deaths from scarlet fever, three in excess of the previous year. The cases numbered 648, compared with 563 in 1904 and 535 in 1903. The districts principally affected were Oakengates with 125 cases, Wellington Rural District with 60 cases, Ludlow Rural District with 46 cases, and Atcham Rural District with 94 cases. Outbreaks in the Atcham Rural District were the subject of a special report.

The disease appears to have been in most of the districts of a very mild description, and in many instances the spread was attributed to mild cases being overlooked and consequently mixing freely with other persons.

None of the cases appear to have been removed to an isolation hospital with the exception of 6 in the Borough of Bridgnorth and 6 in the Rural District of Drayton.

I have information of seven schools being closed on account of scarlet fever during the fourth quarter of the year, but for the previous quarters my information is incomplete.

MEASLES.—The total number of deaths in the county was 32, compared with 54 in 1904 and 28 in 1903. No less than 18 of the deaths were in the Wellington Urban and Rural Districts, and 10 of them were in the Urban District. Dr. Whitaker made a special report on the outbreak in the Wellington Urban District and the important points in it are contained in the following extract from my report for the third quarter of 1905. "The epidemic commenced in March last in connection with one school, and notwithstanding the precautions that were taken, it spread from school to school, and from house to house, until it came to an end after about four months duration. The measures taken were the exclusion from school of all known or suspected cases and their families, and the distribution and posting of handbills containing a description of the disease and the need of isolation. Dr. Whitaker advocates a system of notification from schools, which has been adopted in Wellington on his advice, rather than notification by the medical attendant. He makes a suggestion similar to one I have already made to the Education Committee, that an 'infectious history' of the children be kept as a useful guide in dealing with the spread of infectious disease in schools. Dr. Whitaker did not consider it advisable to close the schools, and there can be no doubt that unless this action is taken at the very commencement it is of no use, especially in an urban community. There were eleven deaths in all, only two of which were of children over two years of age. 'Better care and attention would undoubtedly have saved a number of them.' "

In my last year's report I went somewhat fully into the question of the spread of measles through schools and the possibility of preventing its spread by rational school closure.

The conclusions I arrived at may with advantage be again briefly stated—

- (1) That closure to be of any use must take place after the first case, and be for a period of 7—10 days, sufficiently long to cover the time of onset of illness of the first crop of cases.
- (2) That for this purpose immediate and prompt notification of all cases by the school authorities is necessary.
- (3) That class closure may sometimes be practised with advantage according to local circumstances.
- (4) That in order to be able to ascertain whether a class is susceptible or not, or whether individual children are susceptible or not, a measles history of each child should be kept.

It is possible that, even after careful trial of this method of closure, the results might not be very satisfactory, but it is quite certain that the present method of closure of schools has no influence whatever on the spread of the disease. Although the closure is supposed to be applied as a sanitary measure it is really for the convenience of education.

Whether or not it is possible to reduce much the incidence of measles in urban districts it is certainly possible to greatly reduce the mortality. The great majority of the deaths from measles are due to complications brought on by exposure or some other carelessness. It has been found that by visiting and giving proper instructions the mortality can be greatly reduced. In fact probably the only real benefit to be derived from inclusion of this disease amongst the notifiable diseases is that isolation can be enforced, and the real seriousness of the disease impressed upon the parents.

Considering the number of deaths caused by measles each year, this is a matter that should receive the careful attention of all the sanitary authorities. The possibility of appointing the schoolmasters as temporary inspectors to pay daily visits to infected houses, when the schools are closed, as has frequently been done in some parts of Cheshire, is well worthy of consideration.

WHOOPING COUGH caused 24 deaths, compared with 89 in 1904, and the death-rate was $\cdot 10$ compared with $\cdot 25$ in England and Wales. Again the rural districts were slightly more affected than the urban districts. The districts in which most deaths occurred were Clun 4, Oakengates 4, Ellesmere Rural District 3, Shifnal 3.

In my last Annual Report I said—"The measures taken to prevent the spread of whooping cough are at present very unsatisfactory. It is possible, with good notification from the schools and with the knowledge that is now being gained with regard to measles, that more efficient action will be possible in the future. The uncertainty with regard to the incubation period and the uncertainty and length of the infective period render this disease very difficult to cope with." But even if measures for the prevention of the spread of whooping cough do not prove very successful there can be no doubt that supervision similar to that suggested for measles would greatly reduce the mortality.

DIPHTHERIA.—There were 206 cases notified and 36 deaths compared with 255 cases and 39 deaths in 1904.

The districts principally affected were Oakengates 30 cases, Atcham 26, Wenlock 17, Ludlow Rural District 16, and Wellington Urban District 11. The death-rate of the combined rural districts was slightly higher than that of the urban districts.

The case mortality, *i.e.*, the number of deaths for every hundred cases notified was distinctly high ($17\cdot 4$), and was considerably higher in the rural than in the urban districts.

In the Atcham Rural District a very fatal outbreak of diphtheria was the subject of a special report. To quote from my report for the third quarter of the year—"I have received a report from Dr. Gepp on a very fatal outbreak of diphtheria in the small hamlet of Broadoak, in the parish of Albrighton (Atcham R.D.). Only two households were attacked but there were eleven cases (including the nurse), with six deaths. In one house where the household consisted of the father, mother and seven children, all the children were attacked and the four youngest died. In the other house, the whole household, consisting of the husband, his wife and baby, were attacked, and the two latter died. The first intimation to the Medical Officer of Health was on September 29th, when notifications were received of five cases in one house and three in the other, three other cases developing subsequently. Dr. Gepp was not able to trace the original source of infection, but he attributes all the other causes to infection from one of the girls, who returned from a situation in good health on August 21st, and who subsequently, about September 4th—11th, suffered from a slight sore throat, but was not attended by a medical man. This girl lived during the day at one of the houses and slept at night at the other. He does not think that the milk supply, water supply, defective sanitation, or school attendance were the cause of the origin or spread of infection. To quote from the report—"The chief points shown are the mild nature of the original case and the virulence of infection in nearly all the subsequent cases. The fatal results occurring so rapidly indicate extreme and very exceptional virulence of

infection. An outbreak of this severity is altogether exceptional in this country and is entirely outside my experience. Had an Isolation Hospital been immediately available for the removal of the cases the results might have been more favourable by avoiding the aggregation of cases within the limited space of two small cottages, and the concentration of the poison, and if I had had any expectation that the cases would take on so malignant a type I should have urged the Council to erect the Berthon Hut at the outset for the accommodation of four or five of the patients. The immediate injection of large doses of Antitoxin at the outset might have saved some of the cases, but there is no provision for the supply of this treatment at the public cost, except in Isolation Hospitals, and upon the medical attendant enquiring of me on October 1st whether Antitoxin could be supplied, I had to point out that it has been laid down officially that it is not within the province of a District Council to provide Antitoxin for curative purposes. The chief lesson appears to me to be that every District should have access to an Isolation Hospital, in order that when an emergency arises for dealing with exceptional cases there may be a ready means of acting without delay."

A tent was erected for the nurse, but she herself has caught diphtheria in a mild form, and has been removed to the Shrewsbury Isolation Hospital. Since the report was written a twelfth case has developed—the mother of one of the householders, who came in to nurse the patients.

I quite agree with Dr. Gepp's remarks with regard to an emergency isolation hospital. One could not possibly have a more striking example of the danger of nursing a large number of cases of infectious disease in small cottage houses. The overcrowding, the lack of ventilation, the bad construction of the houses for this purpose, all add greatly to the malignity and infectiousness of the disease. Both persons, called in to nurse, caught diphtheria, whereas in properly constructed buildings, without overcrowding, there is little danger.

The supply of antitoxin, both for curative and preventive purposes should be forthcoming in one way or another. The District Councils have power to supply it for preventive purposes, and the Guardians can supply it for curative purposes to those who are in receipt of poor-law medical relief. There remain those unfortunate persons who are too poor to pay for antitoxin but who do not apply for medical relief. It seems to me that this is a matter which might be placed with advantage before the Local Government Board for any solution of the difficulty they can offer.

There is one other point that should not be overlooked in this very serious outbreak, viz., that an extremely mild case which has been entirely overlooked may give rise to cases of a most malignant type. This is the strongest argument in favour of insisting upon the bacteriological examination of all persons who have suffered from diphtheria before they are allowed to go back to school or to mix with the public."

In my report for the fourth quarter of the year referring to the same outbreak, I said—"No fresh cases have occurred in the Albrighton outbreak, but further investigations have shown one significant fact which should not be lost sight of, as it has a very important bearing upon the spread of diphtheria. Bacteriological examination showed that the girl who had suffered from a very slight sore throat and to whom the origin of the outbreak was attributed, had really suffered from diphtheria. It may seem strange but this same girl was the last of all the cases to become free from infection, and although the case was extremely mild the patient was still infectious six weeks after the illness. This illustrates how mild unsuspected cases may spread the disease through schools or households, and how necessary bacteriological investigation is to bring outbreaks of this kind to an end. It also shows the importance of not allowing children to return to school after having had diphtheria until their throats have been examined bacteriologically."

Dr. Gepp in his special report on these outbreaks said " It will be seen that a considerable amount of work of investigation has been undertaken in connection with the various schools. This work of examining the throats of children in school, and of absentees, and submitting swabs from the throats for bacteriological examination is essential when diphtheria is known to exist in a school or over a wide area, and its value may be seen from the facts in this report. It is not work which it is the province of the District Medical Officer or the County Medical Officer to undertake, and those officers cannot undertake to carry it out at all times with the completeness that is desirable. But it is work for which routine provision should certainly be made by the Education Authority in the interest of the children whom they compel to come to school, and it can only be done systematically in my opinion, by the appointment of Medical Officers to the Schools."

An outbreak in Clive school reported by Dr. Dallewy, was investigated by examining bacteriologically the throats of all the children who had had sore throats. The probable source of the outbreak was discovered in a child who, although she had not been ill herself, had been in contact with a case of diphtheria and had diphtheria bacilli in her throat.

The swabs examined by me in connection with the outbreaks in Schools showed the following results :—

	Number Examined.	Diphtheria Bacilli.	No Diphtheria Bacilli.
Bomere Heath School ..	13	3	10
Berwick and Leaton Schools ..	7	0	7
Montford School	13	0	13
Clive School	11	2	9
	44	5	39

At Rushbury, in the Church Stretton Rural District, a small outbreak of diphtheria well illustrates the necessity for bacteriological examination of the throat as a routine measure after diphtheria. A child whilst away from home was taken ill with diphtheria in July and came home on August 21st, after disinfection of the home. On September 9th a brother caught the disease and died, and a third case followed. The first child had evidently remained infectious for a period of two or three months, and there can be little doubt that bacteriological examination of the throat would have shown the danger and prevented the second outbreak and loss of life. The outbreak at Broadmoor, in Clun Rural District, mentioned in Part II. of this report, shows how rapidly fatal diphtheria may prove in young children.

Out of the eighteen cases in the Borough of Wenlock twelve occurred in or near Madeley Town, between January and June. On account of the recurrence of diphtheria in this locality for some years, it is suggested there may be some local condition favouring the disease.

In Chirbury Rural District, where five cases occurred, the origin and spread was from a common lodging house. In Ludlow Rural District nine cases are said to have been probably due to an overlooked case.

In many districts the origin of the cases was quite obscure. In Shrewsbury, where there were 15 cases, and in Wellington Urban District where there were 11 cases, the outbreaks, with one exception, were single and apparently unconnected. It is extremely probable, however, that in these and other obscure cases there are mild undiscovered cases or carriers (*i.e.* persons with diphtheria bacilli in their throats although not suffering from diphtheria) acting as connecting links.

Amongst much that is debateable with regard to the origin and spread of diphtheria there is one thing quite certain, viz., that a large proportion of the cases are caused by direct infection from child to child in the elementary schools. I went somewhat fully into this matter in my last Annual Report and it is now under the consideration of the Education Committee. I would now simply point out that the three principal measures in the prevention of diphtheria are—

- (1) Whenever two or more cases of diphtheria occur in a school within a limited period, to cause an inspection to be made and swabs taken from the throats of all children who appear likely to have been the cause of the outbreak. The absentees should also be inquired into.
- (2) To insist as a matter of routine, that a person cannot be declared free from infection after diphtheria until the throat has been found free from diphtheria bacilli.
- (3) Whenever satisfactory isolation cannot be provided, to protect the rest of the family by a small injection of antitoxin.

The case mortality, as previously mentioned, appears to be excessive, and this is probably due to the fact that antitoxin is not used sufficiently universally and promptly. To obtain the greatest benefit from this most valuable remedy it must form part of a medical man's outfit, always at hand, and used on the first *suspicion* of diphtheria. The mortality per hundred cases during the last six years has been—

1900	1901	1902	1903	1904	1905
21	16·5	12·3	17·6	15·3	17·4

so that there has been no great diminution of the case mortality such as has been shown to accompany extended and prompt use of antitoxin.

The necessity for using antitoxin early and consequently for having it always at hand is well brought out by the following extract from Sir Henry Littlejohn's report on the City of Edinburgh. Cases admitted to the City Hospital:—

- Of 20 cases injected the first day none died.
- Of 141 injected within the first 48 hours of illness, 6 or 4·25 per cent. died.
- Of 238 injected within the second 48 hours of illness, 20 or 8·42 per cent. died.
- Of 109 injected on or after the 5th day of illness, 13 or 11·92 per cent. died.

The Atcham Rural District Council has decided to provide antitoxin in future at the public cost in suitable cases.

TYPHOID FEVER.—There were 49 cases and 5 deaths, compared with 50 cases and 9 deaths in 1904. No districts were seriously affected. The relatively largest number of cases occurred in Bridgnorth Borough (4), Bishop's Castle (1), Ludlow Borough (3), Wellington Rural (4).

The outbreaks consisted of isolated cases, and with the exception of a few which were attributed to insanitary defects, their origin was obscure. Two cases in the Gobowen district were attributed to drinking impure brook water.

DIARRHŒA.—There were 48 deaths from diarrhœa, compared with 43 in 1904. The death-rate was ·19 compared with ·59 for England and Wales, and ·32 for England and Wales less the 217 towns.

URBAN DISTRICTS.				RURAL DISTRICTS.			
		Under 1 year of age.	Above 1 year of age.			Under 1 year of age.	Above 1 year of age.
Diarrhœa	.. ..	22	6			11	9
Enteritis	.. ..	11	8			14	9

Comparison with last year's report will show that the number of deaths returned as enteritis, especially in the Urban Districts, has greatly decreased.

PUERPERAL FEVER.—Seventeen cases were notified and 6 deaths were registered during the year, compared with 7 cases and 2 deaths in 1904, and 10 cases and 4 deaths in 1903.

An arrangement has been made with the District Medical Officers by which they notify me promptly of any cases that come to their knowledge.

In my last Annual Report I showed the necessity for a clear definition of Puerperal Fever and advised that the Local Government Board should be asked to define what is meant by Puerperal Fever, or better still to withdraw the term and substitute another which shall include those puerperal infectious conditions that are liable to spread from one lying-in patient to another and to which no preconceived notions would be attached. In answer to a communication from the County Council on this subject the Local Government Board replied, saying that the fever known by the name of "puerperal" being a statutory term under section 6 of the Infectious Disease Notification Act, 1889, the Board had no authority to define the term, or to withdraw it and substitute another. It appeared to the Board however that the term might be regarded as a general one, including the several affections referred to in the opinion of the Royal College of Physicians.

The North-Western Branch of the Society of Medical Officers of Health seeing the necessity for a satisfactory working definition of Puerperal Fever if the Midwives Act is to be properly administered, have forwarded to the Local Government Board the following definition as one which might with great advantage be adopted :—

"For the purpose of the Notification Acts, 1889 and 1899, the term 'puerperal fever' shall include all cases in which within seven days after the birth of the child, alive or stillborn, the mother shall have a rise of temperature exceeding 100·4°F. with quick pulse, maintained for a period exceeding 24 hours, without any obvious cause other than the puerperal state.

It shall also include all cases in which, within seven days after the birth of a child, there has been the occurrence of rigor (with attendant illness) without any obvious cause other than the puerperal state."

It is quite evident that cases are reported now as puerperal fever which a year or two ago would not have been reported. It is probable, however, that there are still many minor infectious cases which are still not regarded as puerperal fever, and it is to include these that such a definition as the above is desirable.

TUBERCULOSIS.

Table 9.

	DEATH-RATES FROM PHTHISIS.						DEATH-RATES FROM OTHER FORMS OF TUBERCULOSIS.					
	5 years, 1896—1900	1901	1902	1903	1904	1905	5 years, 1896—1900	1901	1902	1903	1904	1905
Urban Districts.. ..	—	1·28	1·05	1·18	1·4	1·0	—	·46	·43	·54	·41	·37
Rural Districts	—	·75	·70	·86	·87	·92	—	·36	·21	·32	·39	·28
Whole County	—	·98	·85	1·0	1·1	·96	—	·40	·31	·41	·40	·32
England and Wales ..	1·32	1·26	1·23	1·20	1·2	*	·58	·59	·50	·54	·54	*

* These figures are not yet available.

The above table shows that there has been a considerable reduction both in phthisis and "other forms of tuberculosis" on the rates of 1904. The reduction has been principally in the Urban districts.

The districts with the heaviest rates from phthisis were :—

	Deaths.	Death-rates.		Deaths.	Death-rates.
Burford	2	1·6	Wem Rural District	11	1·3
Chirbury	6	1·7	Bishop's Castle	2	1·5
Teine	4	2·1	Wenlock	24	1·5

Several of these districts are very small and the numbers are subject to great variation from year to year. Still some of them have maintained a higher average rate for a considerable number of years than the districts with which they are comparable. This is clearly shewn in the following table where the average annual rate for each district for the last six years is set out, and the amount that this rate has exceeded or fallen short of the combined urban or rural rates is expressed as a percentage of these rates.

Table 10.
AVERAGE PHTHISIS DEATH-RATE FOR SIX YEARS, 1900—1905.

URBAN DISTRICTS.	Death-rates for years 1900—1905	Percentage above or below the average for Urban Districts.	RURAL DISTRICTS.	Death-rates for years 1900—1905	Percentage above or below the average for Rural Districts.
Bishop's Castle ..	1.46	+25.1	Atcham	1.0	+19.6
Bridgnorth	1.32	+12.4	Bridgnorth .. ..	.56	—33.0
Church Stretton ..	.67	—43.0	Burford	1.36	+62.6
Dawley .. ..	.92	—21.7	Chirbury	1.13	+35.2
Ellesmere .. ..	.93	—20.8	Church Stretton ..	.93	+11.2
Ludlow	1.12	— 4.7	Cleobury Mortimer	.39	—53.3
Newport	1.44	+22.5	Clun .. ..	.81	— 3.1
Oakengates .. ..	.65	—44.7	Drayton .. ..	.69	—17.4
Oswestry	1.00	— 1.5	Ellesmere .. ..	.93	+11.2
Shrewsbury	1.40	+19.1	Ludlow .. ..	.52	—37.8
Wellington	1.12	— 4.7	Newport .. ..	.84	+ 0.5
Wem .. ..	.76	—35.3	Oswestry .. ..	.88	+ 5.2
Wenlock	1.47	+26.0	Shifnal .. ..	.88	+ 5.2
Whitchurch .. ..	.79	—32.8	Teme	1.35	+61.4
			Wellington .. ..	.95	+13.6
			Wem .. ..	.90	+ 7.6
			Whitchurch .. ..	.43	—48.5

The most excessive rates amongst the rural districts are those of Burford 62.6%, Teme 61.4%, and Chirbury 35.2% above the average. Burford and Teme are by far the smallest rural districts in the County, and as the numbers are small, there is some uncertainty as to the significance of the figures. Still it is probable particularly with regard to Teme, that defective housing conditions are one cause of this high mortality. The high mortality from phthisis in Chirbury Rural District is in all probability the result to a considerable extent of the very defective houses in the hilly part of this district. Statistics showing the amount of phthisis in the hilly district which is principally in the parish of Worthen, and of the rest of the rural district would be very instructive and useful.

Amongst the urban districts, Wenlock, 26%, Bishop's Castle, 25.1%, Newport, 22.5%, Shrewsbury, 19.1% and Bridgnorth, 12.4% above the average had the highest phthisis rates. None of these rates can be considered at all satisfactory and they no doubt point to a considerable amount of old, worn out, and insanitary property, defective particularly in air space and ventilation. The rate in the Borough of Wenlock may be due to a high rate in some one part, the conditions governing this district differing so widely.

The difference between the phthisis death rates in the urban and rural districts was only 8% compared with 40% in the previous year. As I pointed out in my last Annual Report, there is reason to think that the rates of the rural districts are greatly increased by the deaths of persons who have been infected in the towns, and that only an extensive inquiry will properly clear up this matter.

The position with regard to the prevention of phthisis in the County has undergone no important change since my last Annual Report, from which the following paragraphs are extracted :—

“ Notices warning the public against spitting have been distributed to the workshops, factories, and public-houses of the County. Similar notices have hung in the waiting rooms and booking halls of the railway stations. An attempt, not altogether successful as yet, has been made to get the Railway Companies to put notices requesting the public not to spit in their carriages.

“ A bye-law has been passed making it an offence to spit on the floor or walls of a public building or public carriage.

“ Voluntary notification of consumption by medical men has been adopted by Chirbury, Drayton, and Bridgnorth Borough.

“ Leaflets dealing with the spread of consumption have been drawn up and distributed by the Chirbury Rural District Council.

“ I would suggest that the bye-law which has now been in operation for some months be put in force.

“ Voluntary notification might, if worked more energetically, and if made more general throughout the county, be of considerable use.

“ Leaflets containing the precautions to be observed by persons suffering from phthisis might with very great advantage be forwarded to all the medical practitioners in the county, in order that they could give them to their patients when they thought desirable.

“ Other leaflets dealing with points of general management of the house and household, such as sanitation, cleanliness, etc. might with the co-operation of the various districts be distributed along with the house-to-house inspection that is now made in many parts of county.

“ Great good can undoubtedly be done in the prevention of phthisis by judicious teaching in the higher classes of elementary schools.

“ I have previously discussed the uses of a sanatorium, its advantages from a curative, preventive, charitable, and educational point of view, and also its limitations. The matter is one that should be thoroughly considered by the County Council in all its bearings.”

The suggestion with regard to teaching in the higher classes of the elementary schools is now under the consideration of the Education Committee along with other matters of school hygiene.

The question of notification of phthisis is being brought rapidly to the front and has recently been considered by many of the Sanitary Authorities of the County. Dr. Gepp in his Shrewsbury Report advises that consumption should be made notifiable to the Sanitary Authority but he points out that fresh legislation would be necessary and Dr. Whitaker makes a similar suggestion in his report on Oakengates. The result of voluntary notification in this county so far as one can judge from the reports of those districts where it has been adopted, does not appear to be encouraging. Voluntary notification has only proved successful in those towns, where the advantages of notification are constantly brought under the notice of the medical men in practice in many ways, but in particular by the efficacious but cautious action which is taken by the sanitary authority. There can be little doubt, I think, that compulsory notification will prove a powerful help in the fight against tuberculosis to those authorities, that are ready to fulfil the obligations that naturally follow its adoption. If, however, this notification is to be successful, the subsequent investigation and preventive work has to be carried out with the greatest care and tact, and notification is probably worse than useless if nothing is done when it is received. I am of opinion that voluntary notification of phthisis should be adopted and pushed energetically throughout the county as a preparation possibly for compulsory notification and in order that the capabilities in this respect of the present sanitary organisation may be tested.

It is possible that the advances that have recently been made in measuring the resisting power of individuals, may be of the greatest use in directing into the best channels the action to be taken in preventing this disease. There can be no doubt that of all methods of action for the prevention of infectious disease that is the most valuable which, by modifying the surroundings, increase the power of resistance.

CANCER.

Table 11.

DEATH-RATES FROM CANCER IN THE URBAN AND RURAL DISTRICTS
FOR 1900, 1901, 1902, 1903, 1904, and 1905.

URBAN DISTRICTS.							Average for years 1900—1905	RURAL DISTRICTS.							Average for years 1900—1905
	1900	1901	1902	1903	1904	1905			1900	1901	1902	1903	1904	1905	
Bishop's Castle ..	·6	·0	2·2	2·2	·0	·76	1·0	Atcham ..	1·1	1·19	1·1	·95	1·06	1·4	1·19
Bridgnorth ..	·6	1·32	1·1	·72	1·1	1·4	1·10	Bridgnorth ..	·6	·81	·93	1·1	·46	·46	·76
Church Stretton ..	·0	·0	·0	·96	·0	2·2	·67	Burford ..	·0	·81	·82	1·6	1·6	1·6	1·09
Dawley ..	·4	·79	1·3	1·0	1·0	·78	·90	Chirbury ..	1·2	1·69	·85	·84	1·1	·84	1·13
Ellesmere ..	·5	2·05	1·5	3·0	·0	1·0	1·35	Church Stretton ..	·8	1·11	1·54	1·3	·22	1·3	1·08
Ludlow ..	1·5	·44	1·2	·31	1·7	1·2	1·06	CleburyMortimer ..	·6	·74	1·2	·94	·15	·62	·73
Newport ..	2·64	·92	·95	·63	1·9	1·6	1·44	Clun ..	1·5	1·31	·73	·74	1·8	·59	1·13
Oakengates ..	·5	1·10	·64	1·2	1·1	·72	·90	Drayton ..	·7	·94	1·3	1·0	1·3	·34	·94
Oswestry ..	·5	·62	1·4	1·0	·60	·70	·82	Ellesmere ..	·7	·88	·5	1·2	·63	·63	·78
Shrewsbury ..	·8	·73	1·07	·89	1·0	1·3	·98	Ludlow ..	·9	·78	·52	·84	1·0	·94	·83
Wellington ..	·7	1·25	1·1	1·4	1·2	1·3	1·19	Newport ..	1·6	1·14	·83	1·3	·98	·99	1·17
Wem ..	·0	1·85	2·3	·9	2·2	·0	1·21	Oswestry ..	·7	1·21	·74	1·2	1·5	1·1	1·09
Wenlock ..	·9	·94	1·07	·94	1·0	1·3	1·01	Shifnal ..	·6	·34	1·2	·67	·68	1·1	·79
Whitechurch ..	1·6	·57	·57	1·3	1·3	·38	·95	Teme ..	·5	1·08	·0	·0	1·08	3·2	1·0
								Wellington ..	·6	1·01	·6	·52	1·1	1·3	·87
								Wem ..	·7	·72	1·08	·48	·60	·60	·67
								Whitechurch ..	·0	1·55	·0	1·55	·0	1·5	·77
All Urban Districts	·8	·88	1·1	1·0	1·1	1·1	1·01	All Rural Districts	·8	·99	·87	·94	·96	·98	·95

Table 12.

DEATH RATES FROM CANCER.

YEAR.	REGISTRATION COUNTY OF SHROPSHIRE.	ENGLAND.
1894	·705	·713
1895	·989	·755
1896	·923	·764
1897	1·060	·787
1898	1·028	·802
1899	·976	·829
1900	·931	·828
1901	·965	·842
1902	1·059	·844
1903	1·033	·872
1904	1·024	·879
Average of 9 years 1894—1902.	·959	·796
Average 10 years 1881—1890.	·704	·589

Table 13.

CANCER IN AGE PERIODS 1881—1890.

AGE PERIODS.	Deaths from Cancer in age periods expressed as a percentage of total deaths from Cancer.		Death-rates from Cancer per 1,000.	
	Shropshire (Registration County).	England and Wales.	Shropshire (Registration County).	England and Wales.
35—45	8%	11%	·5	·6
45—55	19%	22%	1·4	1·5
55—65	26%	28%	2·5	2·8
65 and upwards.	42%	33%	4·4	4·2

It will be seen from the above tables that the Cancer rate for the County of Shropshire is consistently above that of England. This I have shewn in previous reports to be due entirely to the age distribution of the population. Contrary to what one would expect from the ages of the population, the rural rate is again lower than the urban. Nor can this difference be due to the Institution deaths, as these are distributed amongst the districts they belong to. The difference is more marked if the correction is made for the age distribution of the population. It certainly seems as if the cause of Cancer, however it acts, is more operative in the town than in the country districts.

It is difficult to draw any inferences from these statistics. Of the urban districts, Newport, Ellesmere and Wem still have the highest average rates. They are no doubt towns of a somewhat similar description, but it is not easy to point to any common factor likely to influence the amount of this disease, except the age distribution of the population. In Newport 20% of the population, in Ellesmere 19·2%, and in Wem 18·1% are over 50 years of age. Whereas taking the towns with the smallest cancer mortality, Oswestry has 16·3% over 50 years of age, Oakengates 16%, Dawley 17·3%, Whitchurch 16·9%, and Shrewsbury 16%. It is evident that this is one of the principal controlling factors in the differences of the Cancer rates.

ANKYLOSTOMIASIS.

During the year circular letters have been sent to seventy-nine mine owners in the County, pointing out the danger of allowing mines to become polluted with faecal matter, and desirability of not employing miners from infected areas without a medical examination. Short notices were also sent for distribution amongst the miners explaining the nature of the disease and the precautions that should be observed.

No case, so far as I am aware, has occurred in the County.

The necessity for the better sanitary supervision of mines has been made very evident by the investigations into this disease, and it is to be hoped, apart altogether from ankylostomiasis, that steps will be taken to prevent the gross pollution with faecal matter that hitherto has been common in many mines.

BACTERIOLOGICAL DIAGNOSIS OF DISEASE.

Quarters of 1905.	For Typhoid Fever. Widal's Reaction.			For Diphtheria.			For Phthisis.	
	Positive	Doubtful	Negative	Positive	Doubtful	Negative	Positive	Negative
First ...	6	1	3	14	1	23	6	14
Second ...	2	1	6	12	2	18	7	9
Third ...	0	0	12	17	0	27	5	14
Fourth ...	3	0	2	22	3	52	1	16
Whole year	11	2	23	65	6	120	19	53
	36			191			72	

The total number of specimens sent was 299 compared with 299 in 1904 and 239 in 1903.

I have also examined in connection with the various outbreaks—

		DIPHTHERIA BACILLI.	NO DIPHTHERIA BACILLI.	TOTAL.
SECRETION FROM THROAT	...	10	45	55

VACCINATION.

I have been able to compile the vaccination statistics through the courtesy of the vaccination officers who have kindly supplied me with all particulars.

These tables showing the state of infantile vaccination in the County are of great practical interest, particularly with respect to the result of the last Vaccination Act. There was a steady increase in the efficiency of vaccination from the year 1897 to the year 1903. The high water mark reached in 1903 was no doubt to some extent due to the presence of smallpox, and in 1904 there was a slight falling off. On the whole, however, the condition of infantile vaccination in the County is extremely satisfactory, and the improvement in some of the districts *e.g.*, Wellington, Clun, Shifnal, and Atcham has been most marked. There is reason also to suppose that not only has vaccination become more universal, but that it has also been performed in a more efficient manner.

The last Vaccination Act must therefore be pronounced from a public health point of view to have been a most successful Act, so far as this County is concerned.

At the present time, owing to a likelihood that the law relating to vaccination may shortly be modified, it is extremely desirable that every authority responsible for the public health should give this matter their careful consideration. From my knowledge of the outbreaks of smallpox in this County during the years 1902, 1903, and 1904, I have no hesitation in saying that the preventive measures taken would have been quite insufficient to prevent a very serious epidemic, if it had not been for the protection afforded by vaccination.

Reference to Table V. will show that although there is, generally speaking, a high standard of excellence, yet there is a very considerable difference in the various districts. The number of unvaccinated children varies from 0% in the parishes of Chirbury and Worthen, 1.1% in Ellesmere, 1.6% in Church Stretton, and 1.7% in Drayton, to 4.2% in Wellington, 5.0% in Wem, 5.5% in Ludlow, and 6.8% in Clun.

TABLE VI.

SHEWING VACCINATION OF INFANTS BORN IN 1904 AND FIRST HALF OF 1905.

	Births.	Successfully Vaccinated.	Insusceptible of Vaccination	Certificates of Conscientious Objection.	Died Unvaccinated	Vaccination Postponed.	Removed out of District.	Unaccounted for.	NUMBERS EXPRESSED AS PERCENTAGES OF BIRTHS REGISTERED.		
									Successfully Vaccinated.	Exempted by "Conscientious Objection" Certificates.	Unvaccinated including (1) Conscientious Objectors. (2) Postponed. (3) Unaccounted for.
					1904.						
ATCHAM	1266	1085	1	18	111	12	32	7	85.7	1.4	2.9
BRIDGNORTH	364	313	0	8	33	2	8	0	86.0	2.2	2.7
CHURCH STRETTON ..	125	117	0	2	4	0	2	0	93.6	1.6	1.6
CLEOBURY MORTIMER	244	203	0	5	28	5	3	0	83.2	2.0	4.0
CLUN	204	176	0	10	12	4	2	0	86.2	4.9	6.8
DRAYTON	356	318	0	0	28	3	4	3	89.3	.0	1.7
ELLESMERE	261	232	1	2	20	1	5	0	88.8	.8	1.1
LUDLOW	380	327	0	19	25	2	7	0	86.0	5.0	5.5
MADELEY	666	590	0	10	46	12	8	0	88.6	1.5	3.3
NEWPORT	253	219	0	3	19	7	5	0	86.5	1.2	3.9
OSWESTRY	758	677	0	0	61	17	3	0	89.3	.0	2.2
SHIFNAL	300	260	0	4	19	4	12	1	86.6	1.3	3.0
WELLINGTON	818	698	0	20	62	6	23	9	85.3	2.4	4.2
WEM	241	215	2	7	8	3	4	2	89.2	2.9	5.0
WHITCHURCH	308	256	4	4	27	10	3	4	83.1	1.3	5.8
PARISHES OF CHIRBURY AND WORTHEN IN THE FORDEN UNION ..	77	74	0	0	3	0	0	0	96.1	.0	.0
TOTAL	6621	5760	8	112	506	88	121	26	87.0	1.7	3.4
					First Six Months of 1905.						
ATCHAM	596	505	0	8	52	10	14	7	84.7	1.3	4.2
BRIDGNORTH	177	158	0	0	9	3	7	0	89.2	.0	1.7
CHURCH STRETTON ..	60	52	1	0	4	3	0	0	86.6	.0	5.0
CLEOBURY MORTIMER	121	109	0	2	5	2	0	3	90.1	1.6	5.8
CLUN	97	79	0	4	10	1	3	0	81.4	4.1	5.1
DRAYTON	159	138	0	0	11	5	4	1	86.7	0.0	3.7
ELLESMERE	122	110	0	1	8	3	0	0	90.1	.8	3.3
LUDLOW	198	162	0	8	16	8	4	0	81.8	4.0	8.1
MADELEY	382	340	0	12	20	8	2	0	89.0	3.1	5.2
NEWPORT	123	105	0	1	9	5	3	0	85.3	.8	4.9
OSWESTRY	414	335	0	0	38	19	1	21	80.9	.0	9.6
SHIFNAL	147	128	0	1	6	5	7	0	87.0	.7	4.1
WELLINGTON	422	355	1	7	34	3	16	6	84.1	1.6	3.8
WEM	121	100	0	5	8	1	3	4	82.6	4.1	8.3
WHITCHURCH	158	124	3	5	13	7	3	3	78.5	3.1	9.5
PARISHES OF CHIRBURY AND WORTHEN IN THE FORDEN UNION ..	31	30	0	0	0	0	1	0	96.8	.0	.0
TOTAL	3328	2830	5	54	243	83	68	45	85.0	1.6	5.4

The districts of Clun, Drayton, Ellesmere, Ludlow, and Madeley are sub-divided, and each division is worked by a separate vaccination officer. The percentage of unvaccinated children varies considerably in each sub-district, as will be seen in the following table :—

1904.							
		Percentage of unvaccinated children.				Percentage of unvaccinated children.	
CLUN.				LUDLOW.			
Bishop's Castle...	5·3	Clee Hill	...	...	·0
Clun	10·1	Ludlow	...	...	7·3
Lydbury	5·2	Munslow	...	...	6·1
Norbury	3·2	Stokesay	...	...	4·9
DRAYTON.				MADELEY.			
Drayton...	1·1	Broseley	...	...	2·8
Moreton Say	3·0	Dawley	...	...	·8
				Madeley	...	...	5·5
				Much Wenlock	...	...	3·8
ELLESMERE.							
Baschurch	1·1				
Ellesmere	1·2				

The number of children that escape vaccination is made up of several distinct groups which may vary relatively in different districts, *e.g.* in the Ludlow sub-district all the unvaccinated children escaped on account of the conscientious objection of their parents; whereas in the Madeley sub-district the majority escaped on account of vaccination being postponed. Most of the latter would be vaccinated later.

It is greatly to be hoped that in any alteration of the law, the protection of the public against small-pox will be increased and not relaxed. A concession might be made without any appreciable danger by raising the age of vaccination to twelve months or even two years, except in times of epidemic, but this should be accompanied by the re-vaccination of children on leaving school. There can be no doubt that with re-vaccination properly carried out, small-pox except for isolated cases would be a thing of the past.

Table 14.
PERCENTAGE OF UNVACCINATED CHILDREN.

UNIONS.		1893-1897	1898	1899	1900	1901	1902	1903	1904
Atcham ...	...	11·9	9·4	6·7	4·4	3·7	4·0	1·9	2·9
Bridgnorth ...	...	7·1	8·3	8·6	5·3	6·5	4·2	2·9	2·7
Church Stretton ...	...	2·4	3·2	9	2·8	2·5	1·7	1·4	1·6
Cleobury Mortimer ...	...	4·8	5·4	6·1	4·6	6·3	5·5	1·7	4·0
Clun ...	...	34·2	18·8	12·4	11·2	9·0	9·5	4·4	6·8
Drayton ...	...	1·7	3·6	4·2	4·8	2·8	2·2	3	1·7
Ellesmere ...	...	2·9	1·6	3·0	2·9	3·2	1·1	1·9	1·1
Ludlow ...	...	7·5	9·9	6·7	7·0	5·7	4·6	3·8	5·5
Madeley ...	...	5·2	8·2	6·2	2·3	3·2	2·3	3·4	3·3
Newport ...	...	5·3	9·6	5·9	5·6	5·4	3·5	2·6	3·9
Oswestry ...	...	3·9	5·8	3·1	4·1	2·7	2·2	2·1	2·2
Shifnal ...	...	15·7	8·5	7·8	2·0	1·8	1·5	2·8	3·0
Wellington ...	...	39·7	33·9	23·8	9·6	6·1	7·0	4·9	4·2
Wem ...	...	1·6	7·5	7·9	6·3	5·2	5·1	3·9	5·0
Whitchurch ...	...	5·1	13·4	16·7	9·5	5·6	7·4	6·5	5·8
Total ...	...	11·0	10·8	8·3	5·4	4·4	4·0	3·0	3·4

SCHOOLS AND SCHOOL ATTENDANCE.

I have received during the year notice of closure of 38 schools for infectious disease. The returns were, however, very incomplete for the first three quarters of the year, but since that time I have received complete returns from the Secretary for Elementary Education. The causes of closure were Influenza 5, Measles 12, Mumps 2, Scarlet Fever 7, Diphtheria 4, Whooping Cough 5, and Chicken-pox 3. It will be observed that the schools were mostly closed on account of diseases that are not notified by medical men, and as no form of notification has been arranged for by the school authorities, it follows that these schools have been closed in most instances without the information, on which alone closure can be satisfactorily applied. Not only is closure applied to a great extent in the dark but little knowledge is being gained as to its effect so as to guide future action. It is unnecessary, however, to enter into this matter further at present as the whole question of the hygienic control of schools is being considered by the Education Committee.

There are allusions in many of the district reports to the extreme importance of teaching hygiene in the elementary schools as a means of reducing mortality from many diseases, and particularly the mortality of infants. Dr. Gepp in his report on Shrewsbury says—"The direct responsibility for the proper care of their infants must lie, necessarily, upon parents, and the most practical work before the country in this matter, is, in my opinion, to ensure that the children now being educated in the elementary schools are trained in the principles of health, and especially that the girls, the future mothers, are taught thoroughly the principles of infant rearing. This is a matter which concerns the Council as the Local Education Authority and the Board of Education as the controlling and guiding body."

Dr. Whitaker referring to phthisis says—"Undoubtedly the first step is to educate the public and develop its interest—especially that of the working classes. This should have its commencement in the Public Elementary Schools, where the value of fresh air, sunshine, cleanliness, suitable food decently cooked, and the avoidance of the use of alcohol, should be efficiently taught. This would be for the Education Authority."

These matters are, to my mind, of supreme importance, demanding careful training of the teachers, and teaching of a thoroughly practical and intelligent character.

HOSPITAL ACCOMMODATION.

The hospital accommodation is practically the same as in 1904. The following is a statement of the position of the County with regard to hospital accommodation:—

Small-pox.

- | | | | |
|----------------------------------|-----|-----|--|
| 1.—A hospital for 6 beds | ... | ... | for Shrewsbury and a Berthon Hut to be used in an emergency. |
| 2.—A hospital for about 8 beds | ... | ... | for Cleobury Mortimer, Burford and Tenbury and Rock in Worcestershire. |
| 3.—A hospital for about 6 beds | ... | ... | for Ludlow Urban and Rural Districts. |
| 4.—A hospital for 6 beds | ... | ... | for Chirbury and the other districts in the Forden Union. |
| 5.—A hospital for 8 beds | ... | ... | for the districts of Whitchurch Urban and Rural, Wem Urban and Rural, and Drayton Rural. |
| 6.—A hospital for 8 beds | ... | ... | for Shifnal and Dawley. |
| 7.—A hospital for 8 beds | ... | ... | for Wellington Urban District. |
| 8.—A hospital for 8 beds | ... | ... | for the Borough of Wenlock, at Broseley. |
| 9.—An isolated cottage | ... | ... | for Bishop's Castle and Clun. |
| 10.—An isolated cottage | ... | ... | for Teme and Knighton Urban and Rural Districts. |
| 11.—A Berthon Hut and Small Tent | ... | ... | for Aitcham Rural District. |

Also the following sites have been secured for putting up buildings or tents in case of emergency :

- 1.—One to serve Oswestry Borough.
- 2.— „ „ Oswestry Rural District.
- 3.— „ „ Newport Urban and Rural Districts.
- 4.— „ „ Church Stretton Urban and Rural Districts.

The Wellington Rural District has entered into an agreement with the Urban District for the use of their hospital.

The Borough of Bridgnorth makes use of its general hospital for small-pox cases when necessary.

Oakengates Urban District is still trying to make some agreement with Shifnal. At present this district is without hospital accommodation.

Ellesmere (U. & R.) and Bridgnorth (R.), are absolutely without hospital accommodation except in connection with the Workhouse. Dr. Gepp recommends to the Atcham Council the acquisition of a site and the erection of a cottage as a nucleus to deal with any outbreak of small-pox or serious outbreaks of other infectious disease ; or better still, as the district is so large, three cottages suitably placed.

Other Infectious Diseases.—The accommodation in the County consists of (1) a small hospital at Bridgnorth, also used for small-pox ; (2) a hospital of 4 beds for the Newport Urban District ; (3) a hospital of 8 beds at Market Drayton for the Drayton and Blore Heath Rural Districts.

The Church Stretton Urban District Council has failed to find a suitable cottage. Dr. Gepp advises that a site be obtained and a cottage built as a nucleus.

Dr. Gepp suggests that the Shrewsbury Hospital should be removed to a more suitable site and extended so as to provide accommodation for those cases of scarlet fever, diphtheria, or enteric fever, where there is a special risk if allowed to remain outside a hospital.

Dr. Griffiths says :—

“The Isolation Hospital provided by the Knighton and Teme Joint Hospital Board is neither suitable nor adequate, and the provision of a proper hospital calls for the serious consideration of the Council.”

Dr. Cranstoun recommends the provision of an isolation hospital for Ludlow, either by the Borough alone, or in conjunction with the Rural Council, and suggests that two beds should be provided for every thousand inhabitants.

DISINFECTION.

No further progress appears to have been made by the various authorities in the provision of steam disinfectors. As disinfection by steam is the only method of disinfecting beds, carpets, clothes, curtains, and all unwashable textile materials, it must be recognised that the disinfection attempted without such apparatus must be very inefficient and unsatisfactory.

Although it seems almost incredible, considering how important a steam disinfectant is in preventing infectious disease, the Borough of Shrewsbury is still without one. The provision of a disinfectant has been recommended by Dr. Gepp from year to year and his recommendation was adopted by the Sanitary Committee in 1902, but was referred back by the Council. It is to be hoped that this important matter will come up again for consideration shortly.

The Wem Urban and Rural District Councils are considering the question of the purchase of a disinfectant for the two districts.

There are at the present time four steam disinfectors belonging to the Sanitary Authorities of the County, viz. : at Bridgnorth, Wellington, Drayton, and Atcham. Small, but efficient disinfectors can be obtained for a sum of £25—30, and every Sanitary Authority and every Workhouse should certainly have one.

The Rules of the Central Midwives Board (Sec. E. (5)) says—“That unless otherwise directed by the local supervising authority all washable clothing should be boiled and other clothing should be sent to be stoved (by the local sanitary authority), and then exposed freely to the open air for several days.”

It is needless to say that so far as relates to the stoving by the local sanitary authority this rule is inoperative in the greater part of the County.

In many of the districts the disinfection of houses is carried out by the sanitary inspector, or under his direct supervision. In some districts, however, the householder is merely supplied with disinfectants. This method is extremely unsatisfactory.

HOUSE ACCOMMODATION.

A few extracts from the district reports will show the general character of the house accommodation in the Urban and Rural Districts and some of the difficulties that are met with in attempting to improve their condition. Dr. Gepp in his report on Shrewsbury says “as regards fitness for habitation it is exceptional to find a house in such a state as to appear susceptible of direct action of closure. The housing problem in Shrewsbury lies in its inheritance, from the 17th and 18th centuries chiefly, of a very large number of old houses badly spread on area, badly designed, and though strongly built, in a condition of natural decay. There has been no extensive development such as in a manufacturing town might have led to clearance of old property. There remains therefore a large number of old houses which from defects of situation or structure exhibit features of dampness, or insufficient light and ventilation or dilapidation due to age, and do not afford wholesome conditions of habitation. This class of property remains in demand as it lets as a rule at rents which attract a class of low wage earners, and at rents which would offer no possible return for cottages built in accordance with modern essentials. Frequent inspection and constant attention to details of individual houses is necessary to the maintenance of this class of property in as decently sanitary condition as possible. This old property comes under periodic inspection and a good deal is done in consequence by way of patching and repair.” It is evident from this quotation that much remains to be done and that notwithstanding the action that is taken in attempting to keep the existing houses properly in repair, as time goes on more radical action will be necessary, if any real improvement is to be brought about.

Dr. Whitaker, in his report for the Wellington Urban District, says, “Further building of dwellings has taken place during the year, and there is much less need of suitable dwellings than there was; indeed, a good many houses have been empty. Further improvements have also been effected in a number of existing dwellings. I have had in a few instances, however, to condemn some of the smaller and older cottages, and to deal with some cases of overcrowding. The problem of providing adequate cottages for those whose incomes are within the poverty limit is one which has not yet been solved, and a number of houses exist which are not satisfactory, but, being weather-proof, serve to house people who can only pay rents far below the amount which would tempt private firms to build new cottages.” In his report on Oakengates he says, “There are a number of houses which are really unfit for human habitation, yet because of lack of better houses at low rental you are faced with a difficulty in dealing with them.”

Dr. Beresford, in his report on the Oswestry Rural District, says, “There are many dilapidated and overcrowded houses in the district which cannot at present be condemned owing to scarcity of houses of moderate rental.”

Referring to the houses in the Clun Rural District, Dr. Gepp says, “Many houses of very old structure and of poor and worn-out condition exist and remain in occupation in the absence of any better accommodation being available. Some are undesirably small for family accommodation; many are badly lighted and ventilated, especially as regards bedrooms; and some are damp and more or less dilapidated”.

Dr. Gepp referring to the "barracks" in the Newport Rural District, says, "They need to be thoroughly well spouted and troughed, with means of storing or carrying off the rain water, the roofs ceiled, and through ventilation provided, preferably by skylights as the walls are low and the roofs high pitched." He remarks that much improvement has taken place in this property of late years.

The above quotations show the great need there is for improving the housing accommodation both in urban and rural districts and they also show the great difficulties in the way of bringing about any radical improvement. What every Sanitary Authority can do and certainly should do, is to institute a regular systematic house-to-house inspection. The particulars of the inspection and the defects found should be carefully recorded, and the necessary action should be taken to remedy the defects. The districts in which house-to-house inspection is carried on are: the Rural districts of Atcham, Church Stretton, Clun, Wem, and Whitechurch; and the Urban districts of Church Stretton, Ellesmere, Newport, Oakengates, Shrewsbury, Wenlock, and Whitechurch; but in some of these districts apparently the inspection is not carried on in a very energetic manner.

In the reports for Bridgnorth Urban and Rural, Chirbury, and Wellington Rural Districts no mention is made of house accommodation.

Building bye-laws and presumably proper inspection of new dwellings are in force in the Urban Districts of Bishop's Castle, Church Stretton, Dawley, Ellesmere, Ludlow, Newport, Oakengates, Oswestry, Shrewsbury, Wellington, Wem, and Whitechurch; and the Rural Districts of Atcham (part of), Cleobury Mortimer, Drayton, Ludlow, Oswestry, Shifnal, and Whitechurch.

In the following districts there are no bye-laws and consequently buildings can be put up without conforming to sanitary conditions:—Bridgnorth (U. and R.), Burford, Chirbury, Church Stretton (R.), Ellesmere (R.), Newport (R.), Teme, Wellington (R.), Wem (R.), and Wenlock.

WATER SUPPLY.

Considerable progress has been made during the year towards providing with water that part of East Shropshire which is so badly in want of it. Lilleshall village, Muxton, and Donnington will shortly be supplied with water from a well near Lilleshall, the water being pumped to a reservoir on Lilleshall Hill. Donnington Wood is to be supplied along with Oakengates from a well at Hilton Bank, the reservoir being placed on the high ground to the East of St. George's. This work is being carried out by the Duke of Sutherland. The Dawley Council is in negotiation with the Wenlock Authority for a supply from Harrington. The public supply to the village of Hadley is being extended. It is probable that the whole of the district included in the Oakengates Water Act will shortly be supplied with water, with the exception of the higher parts of the Wellington Rural Parish. Dr.^fHawthorn reports that efforts are being made to get a supply to this district from the Wellington Urban District. A supply is urgently required, and this matter should receive the unremitting attention of the Council until a supply is obtained.

Dr. Gepp in his report to the Atcham Rural District Council advises that with respect to new houses the site of the well should be inspected and approved before the work is begun, and that the well should be made water tight from a few inches above the surface to a depth of 8 feet or to the water level. He also points out the power of the District Council under the Public Health (Water) Act, 1878, to cause old wells to be reconstructed and made less liable to pollution. Several small improvements have been carried out in the Atcham District, of which the most important are (1) a small scheme at Ruckley, with wind engine for 8—10 houses; (2) the provision of a well and pump by the roadside for Pontesbury Hill; (3) the provision of a 12,000 gallon wooden tank to increase the storage for Meole Brace.

At Clungunford, in the Rural District of Clun, the spout supply has been improved and preliminary action taken by the chief property owner for laying on water to his property. Schemes have been recommended from time to time for Clunbury, Clunton and Clungunford, but after referring them to the parishes concerned no action has been taken.

At Bromlow a new well has been sunk.

Arrangements have been made at Craven Arms for augmenting the existing supply. The "Oak," Clee Hill, is now well supplied and also the cottages belonging to the Dhu Stone Company. Water has been laid on to Seifton Bach.

The Pant water supply has been completed and will afford an abundant and pure supply. The Weston Rhyn, Trefonen, Sweeney Mountain, and St. Martin's Waterworks are all working well. At Gobowen there is now a fair prospect of a water supply being provided.

A scheme has been got out for improving the supply to the higher parts of Ludlow.

Plans are before the Local Government Board for improving the water supply of the Wellington Urban District. It is intended to construct a clean water tank and sand filters at the Wrekin Reservoir, and to put down a pumping station at the bore-hole recently made in order to pump water into the reservoir when necessary. It seems likely that this combination of an upland gravitation scheme with a pumping scheme will prove eminently satisfactory. In all probability pumping will only be necessary during a short period in the dry seasons of the year, but it will relieve the fear of a water famine which is always present to water authorities relying on upland schemes where a very abundant storage accommodation is not provided. Well constructed sand filters properly managed, will relieve any fears caused by the fact, that the gathering ground is not an ideal one. A great saving of water has been effected during the year, the domestic and municipal supply having been reduced to 12·67 gallons per head. The prevention of waste of water, whilst not in any way limiting copious use for legitimate purposes, is a matter which can profitably be considered by many authorities. Not only is this waste wrong economically, but leakage of water long continued often has a very harmful effect upon the sanitary condition of property.

In Drayton Rural District the Market Drayton water supply is being extended to Betton, and it is hoped that arrangements will be made for its extension to Norton-in-Hales.

In the Wem Rural District plans were got out for the supply of Prees and Whixall, but both were rejected by the parishes on account of cost.

Dr. Hawthorn reports that no improvements have yet been made to the water supplies of Bolas and Rodington.

Dr. Whitaker in his report on Cleobury Mortimer says, "Houses are still in want of a pure water supply in several parts of the Clee Hill within the district."

Dr. Griffiths reports that the supply of water to the village of Bucknell has been reported on as unreliable and insufficient, and the question of providing a supply is under the consideration of the Council. The supply of Kinsley remains in the same unsatisfactory condition.

At Bridgnorth the river supply is reported as satisfactory but that increased filtering area would be an advantage, and that this would probably occupy the attention of the Water Committee during the coming year. In the Bridgnorth Rural District the supply to Alveley has been defective owing to failure of the ram.

In his report on Ellesmere Rural District Dr. Whitaker says, "In the case of one or two of the villages where the supply is by shallow wells in a porous subsoil, I would again suggest to you the advisability of ascertaining whether these wells are liable to pollution or not. If a few wells were selected and samples taken to be analysed, useful information would be obtained."

In the report on the Borough of Wenlock Dr. Gepp points out the great advantage of properly storing rain water from the house roofs where the water supply is inaccessible.

It is suggested that the water supply from the small reservoir at Church Stretton should be filtered, and that the supply to Little Stretton should be improved or water laid on from the Church Stretton supply.

A scheme recently proposed for the supply of Shrewsbury with filtered upland surface water from Pulverbatch has been rejected by the rate-payers. The position of the Shrewsbury Corporation in this matter is admittedly a difficult one, but their efforts should not be relaxed until a pure supply has been obtained for the town and the present antiquated and dangerous system abolished.

It will be seen that a considerable amount of work is being done, but much greater activity, particularly in the Rural Districts will be necessary if the present unsatisfactory water supplies are to be much improved within a reasonable time.

No action appears to have been taken by any of the Councils on the lines suggested by Dr. Gepp for improving well supplies. If, as he suggests, the majority of wells can be made reasonably safe by the expenditure of the amount specified in the Public Health (Water) Act, 1878, it undoubtedly is the duty of the Rural District Council to take action in these cases on it coming to their knowledge that the wells are polluted. It cannot be too much insisted upon that, to quote sec. 3 of that Act, "It shall be the duty of every Rural Sanitary Authority, regard being had to the provisions in this Act contained, to see that every occupied dwelling-house within their district has within a reasonable distance an available supply of wholesome water, sufficient for the consumption and use for domestic purposes of the inmates of the house." If the authority cannot compel the owner to provide a supply it is their duty to provide it. Nor can this responsibility be moved on to the Parish Council concerned. For the Parish Council to merely reject a scheme on account of cost is not sufficient, they should at least bring forward some alternative suggestion, as the Rural District Council strictly have no option but to provide a supply or see that a supply is provided if the houses have not "within a reasonable distance an available supply of wholesome water." Instances are quite numerous in which the Rural District Councils have drawn up schemes either for water supply or sewerage and sewage disposal, and submitted them to the Parish Councils who have rejected them on account of cost. The matters have then been allowed to drop. The following examples may be cited from the present report—water supplies for Clunbury, Clunton, Clun, Whixall, Prees. The Parish Council has a right under sec. 16 (3) of the Local Government Act, 1894, to receive notice when plans of sewerage or water supply have been adopted by the District Council, and no doubt they have a right to criticise and state objections, but the decision and responsibility of such decision must remain with the District Council.

I have during the year reported on the water supplies of Baschurch village and on the supplies of the Borough of Bridgnorth and the Bridgnorth Rural District. I have also reported to the Teme Rural District Council on the practicability of supplying the village of Bucknell from the Birmingham water mains. I have also been engaged on an inspection of the water supplies of the Atcham Rural District.

SCAVENGING.

In the rural districts scavenging is almost entirely undertaken by the occupiers. This may be done quite satisfactorily where each house has enough space for the proper disposal of house refuse and privy contents. There are, however, small towns and large villages in rural districts where public scavenging is very desirable. Of these Shifnal, Market Drayton, Cleobury Mortimer, Highley, and Hadley are examples. Shifnal has a system of public scavenging, the work being done by contract. At Market Drayton this question was recently considered, but the Council did not decide to undertake the scavenging. Dr. Macqueen remarks that it is under consideration. At Hadley some reform is urgently required, but nothing definite has yet been done. At Cleobury Mortimer a tip has been provided and the occupiers are expected to remove their refuse to it, and the same obtains at Clun.

Dr. Whitaker says, "The scavenging of Highley is unsatisfactory, the district should undertake the work of clearing the ashpits, and not rely on the tenants. On my visits there, I found most of the Ashpits heaped up with refuse."

Dr. Beresford recommends that the scavenging and drainage of some of the larger villages in the Oswestry Rural District, commencing with Weston Rhyn, be now dealt with.

There is a weekly removal of house refuse at Shrewsbury, Wellington, Church Stretton, Wem, Bridgnorth (partial), and a daily removal at Oswestry.

The experience at Oswestry both with regard to the cost and the beneficial results deserves consideration. Both the Medical Officer of Health and the Inspector of Nuisances speak of the great benefit that has resulted from this prompt removal of refuse. From figures supplied to me by the surveyor it appears that the cost now with daily removal is actually less than it was when the refuse was allowed to accumulate in the large ashpits and only emptied on request. I have visited many of the worst courts of the town and am perfectly convinced that the daily removal of refuse has a marked beneficial effect upon their condition, and must result in greatly lessening those evils inseparably connected with areas of this description.

Oswestry is certainly to be congratulated in this matter, and I would recommend to those authorities who have the question of disposal of house refuse under their consideration to make inquiries in that town.

Of the remainder of the Urban Districts, at Bishop's Castle scavenging is done by the occupiers—the Council providing a tip; at Dawley by the Council at the request and cost of the householders; at Newport it is undertaken by the Council; in the Borough of Wenlock by householders, except Madeley, where there is public scavenging; at Whitchurch by the householders or by the Council at the cost of the householders; at Oakengates and Ludlow there is public scavenging, but apparently not systematic. Improvement of the scavenging of Ellesmere has been recommended from year to year.

It cannot be doubted that the *systematic* removal of house refuse in towns, even of small ones, is a sanitary matter of the greatest importance, and one which cannot be neglected without serious injury to the health of the inhabitants. It is surprising that a town like Whitchurch should not have adopted public scavenging, for simply to remove house refuse at the cost of the householder is to put a premium upon the retention of refuse on premises for long periods. It is not sufficient, however, simply to undertake the removal of refuse on request, but the removal should be systematic and at short intervals, for it is only by adopting these methods that the real benefit of public scavenging can be obtained.

The house refuse collected by the urban authorities is disposed of by "tipping." At Ludlow, where grave complaints have been made in the past, Dr. Cranstoun says that satisfactory arrangements have been made. In Shrewsbury Dr. Gepp says that greater attention is now paid and complaint is rare. He says the important point is to cover the refuse liable to decompose with soil or dry ashes, and so prevent offensive nuisance and the breeding of flies. When a tip is in such close proximity to a town as it is at Shrewsbury, very great care is required in order to prevent it becoming a danger to health. In several of the small towns and villages in the rural districts public tips are provided to which the householders have to remove the refuse.

EXCREMENT DISPOSAL.

Throughout the rural districts the method of disposal is by privies with underground vaults, mostly of a very objectionable type. The remedy here is conversion into some form of earth closet except in those rare instances where a water supply and proper sewers are available.

In the Atcham Rural District 84 privies were converted to earth closets during the year.

At Craven Arms the Medical Officer of Health reports that conversion of privies to water closets is greatly needed.

At Hurst Mill and Clungunford there are closets discharging directly into the stream which should be dealt with.

In his report on the Borough of Wenlock Dr. Gepp says drained privies should be converted to water closets, but the sewers and outfalls are not in a satisfactory state for the wholesale conversion of privies.

In Bishop's Castle a proper sewage disposal scheme is necessary to allow of the conversion of many of the old objectionable privies.

In Newport Urban District there is plenty of room for action, about three-fourths of the houses having privies with underground vaults.

In Shrewsbury and Oswestry the water-carriage system is almost universal, and in most of the other urban districts there is a certain small amount of conversion of privies to water closets going on.

In a town, however small, where there is a good supply of water, good sewers and means of disposal of the sewage, it is extremely desirable that all privies should be converted to water closets as rapidly as possible.

SEWAGE DISPOSAL.

The only sewage works of any considerable size that were opened during the year were those of Church Stretton. Speaking broadly, the treatment at these works is by septic tanks, single contact beds and irrigation on land. The works have not yet been sufficiently long in operation, nor have I made sufficient investigation, to say whether or not they are likely to be a complete success.

There have been three Local Government Board Inquiries with respect to sewerage or sewage disposal works during the year :—

(1) At Wellington into an application by the Urban District Council for compulsory powers to purchase land for the extension of their sewage works. The powers were not granted either because the land was not suitable or was not considered necessary. Plans of a scheme have now been submitted to the Local Government Board for carrying out the necessary improvements and extensions on the land already in the possession of the Urban Council.

(2) At Wem into an application by the Urban Council for powers to borrow £2,000 for purposes of sewerage and sewage disposal of part of the town. The application was refused and a further scheme for dealing with the sewage of the whole town, and estimated to cost £5,000, has since been submitted, and an inquiry has been held.

(3) At Oswestry into an application by the Borough Council for sanction to borrow £3,750 for the purchase of 29 acres of land for sewage disposal purposes.

Plans have also been submitted to the Local Government Board of a scheme for the treatment of the sewage of Ellesmere Urban District and an inquiry was held in March of this year.

The following remarks bearing upon the question of sewage disposal are taken from the District Medical Officer's Reports :—

Bishop's Castle.—"A sewerage scheme has been prepared by the engineers engaged by the Council and accepted, and is now awaiting arrangements as to land and easements required for the outfall works."

Clun.—"The principal sewers (town of Clun) discharge direct into the river, and in recent years the Council has provided a flushing tank and ventilating shaft at the head of the chief sewer, and relaid the outfall."

Cleobury Mortimer.—"The condition of things at Cleobury is one that will require to be tackled sooner or latter, the discharge of untreated sewage into the River Lea is not to be recommended, however convenient it may be found to be."

Dawley.—"The outfall of the main sewers of the District is, as a rule, into long open channels running through and out of the District and finally into water courses draining to the Severn."

Drayton.—"The Ducat bacterial filter erected at Quarry Bank for the treatment of Little Drayton sewage is still working efficiently." "The treatment of Market Drayton sewage should have the early consideration of the Council."

Oswestry Rural District.—"Weston Rhyn, a populous village, should be the first to be dealt with. It has a good water supply, and in consequence many water closets have been erected, the old systems of drainage therefore should be remodelled and the outfall improved."

Shifnal.—"The effluent at the outfall has been complained of, but I find no grounds for such complaint."

Wellington Rural District.—"Nothing practically has been done during the year to abate the nuisance at Bratton and the immediate neighbourhood caused by the discharge of the sewage of the Wellington Urban District into the brook. There should be no delay in adopting measures to prevent this long-standing serious pollution." "I regret that the efforts of the Council to obtain a suitable site for the Hadley Sewage Disposal Area, to meet the requirements of the Local Government Board, have not yet been successful. This retards the carrying out of several sanitary improvements in the Parish."

Wellington Urban District.—"The solution of the difficulty with regard to the ultimate disposal of the sewage of the town has occupied a great deal of the time of the Sanitary Committee and the Council, and has been reduced to a definite scheme. Such scheme . . . should provide a practical way out of the difficulties that have faced the Council so long."

Wem Urban District.—"A scheme for the proper treatment of the sewage of the whole town is now under consideration by the Urban Council."

Wenlock.—"The outfall of most of the main sewers is either directly into the Severn or into streams which fall into the Severn within the district." "Improvements both in the sewers themselves, and in the disposal of sewage, are very desirable, and will become more so with increase of water carriage following upon the Water Supply Schemes carried out. In Much Wenlock and in Broseley and Madeley there appear to be no grave difficulties in the way of disposing of sewage by outfall works, but Ironbridge, by its situation and physical features presents one of the most difficult problems for efficient and economical sewerage. Jackfield, across the river, presents another problem but a smaller one."

I have inspected and reported upon the following places with respect to their methods of disposal of sewage :—Ludlow, Oswestry, Market Drayton, Wem, Hadley, Oakengates, Bishop's Castle, Cleobury Mortimer, Church Stretton. I have also reported on complaints with respect to pollution of the river from Tibberton Paper Mill. The results of my inspections have appeared in my quarterly reports.

The districts which have schemes before the Local Government Board at the present time are—Ellesmere Urban District, Wem Urban District, and Wellington Urban District, whilst Bishop's Castle and Hadley schemes will no doubt be submitted as soon as the difficulties with regard to land have been got over.

Record of Sanitary Work done during the year 1905.

Table showing the work done by the various Sanitary Inspectors ; the Returns are made on a uniform plan as far as possible.

SANITARY AUTHORITY.				Number of Houses which have been Inspected during the year, either in connection with outbreaks of Infectious Disease, or in consequence of complaints, or in course of a systematic Sanitary Survey.	Total Number of Notices of all kinds served, including both formal and informal Notices.	Number of such Notices complied with.	PARTICULARS OF SANITARY MATTERS REFERRED TO IN THE ABOVE NOTICES.							Number of cases in which proceedings before Magistrates have been taken for failure to comply with any of the above Notices.	PROCEEDINGS TAKEN BEFORE MAGISTRATES WITH REFERENCE TO			Letters Written.
Houses to be disinfected after Infectious Disease.	Deficient or objectionable Water Supply.	New Drains to be constructed or old Drains to be amended.	New Closets to be provided or old ones to be amended in construction.				Houses damp, dirty, or admitting rain or weather, or otherwise in a bad sanitary condition.	Offensive accumulations of all kinds.	Animals so kept as to be a Nuisance.	Houses Overcrowded.	Exposure of Bad Meat for Sale.	Public Exposure of Infected Persons or Things.	Offences against By-Laws and Regulations relating either to Lodging Houses, Slaughter Houses, Dairies and Milkshops, &c.					
RURAL DISTRICTS.																		
Atcham	1768	446	312	59	32	183	145	69	49	14	10	none	..	..	..	513
Bridgnorth	2011	89	77	11	47	68	32	4	9	..	3	none	..	..	..	..
Burford	65	35	5	7	3	..	5	4	..	..	1	none	..	..	..	10
Chirbury	517	93	59	11	7	8	9	5	27	..	1	none	..	..	..	..
Church Stretton	619	37	35	1	7	..	17	..	6	..	3	none	..	..	..	53
Cleobury Mortimer	240	41	41	12	6	3	6	5	1	1	..	none	..	..	..	..
Clun	180	48	20	18	15	23	4	5	..	..	..	none	..	..	..	35
*Drayton	696	347	306	35	9	38	31	29	230	5	5	none	..	..	..	..
Ellesmere	500	21	16	16	..	9	5	2	2	..	..	none	..	..	..	71
Ludlow	180	30	30	21	several	20	37	several	several	several	10	none	..	..	..	50
Newport	314	40	19	22	1	5	2	1	..	..	18	none	..	..	..	11
Oswestry	500	56	36	43	3	9	12	10	15	6	3	none	..	..	..	42
Shifnal	350	187	187	19	21	40	14	6	103	13	5	none	..	..	..	320
Teme	60	7	7	3	..	10	4	6	..	..	..	none	..	..	..	..
Wellington	142	20	20	127	81	14	10	4	..	..	1	none	..	..	..	7
Wem	543	203	142	24	73	41	18	9	26	..	6	none	..	..	..	125
Whitechurch	295	26	..	..	16	9	13	..	20	..	..	2	..	..	..	150
URBAN DISTRICTS.																		
Bishop's Castle	253	9	9	2	..	1	2	..	6	..	..	none	..	..	..	..
Bridgnorth	Not received.																	
Church Stretton	314	23	23	..	..	1	..	1	19	2	..	none	..	..	..	34
Dawley	1082	393	391	9	3	94	43	21	204	3	6	none	..	..	..	550
Ellesmere	562	36	36	..	..	10	3	2	21	..	..	..	..	..	..	29
Ludlow	101	74	65	..	..	32	29	3	1	3	2	2	..	..	..	..
Newport	253	532	530	4	..	21	14	..	1083†	..	..	none	..	..	..	68
Oakengates	1101	231	201	147	4	536	102	58	25	5	9	none	..	..	..	89
Oswestry	1700	135	124	19	1	105	20	5	30	4	..	none	..	..	..	45
Shrewsbury	1658	788	769	57	46	233	109	72	226	19	24	none	..	..	..	125
Wellington .. ..	..	109	107	32	..	39	34	13	5	4	7	..	..	..	..	165
Wem	862	25	23	3	..	23	19	..	..	2	..	none	..	..	..	12
Wenlock	1563	410	388	..	11	123	78	61	174	10	17	none	..	..	..	172
Whitechurch	636	118	92	20	38	54	149	31	63	2	3	none	..	..	..	70

* Drayton does not include work done in connection with Bye-laws for street cleaning and refuse removal.

† Newport Urban, includes work done in scavenging town.

SEWERAGE AND DRAINAGE.

The various minor works of drainage and sewerage that have been carried out are specified in the second part of this report.

A scheme for the sewerage of the village of Prees, prepared by the Wem Rural District Council, was rejected by the inhabitants on account of cost.

In several of the Urban Districts all new drains, and drains which are relaid, are submitted to the water test. On the other hand there are many districts in which this most essential sanitary precaution is not carried out. It is extremely important that in every district where there is a system of sewerage, the drains should be submitted to the water test and thoroughly inspected before being covered up. In those districts where a sewerage scheme is being carried out, or is likely to be carried out, the district Councils would be well advised to adopt drainage regulations and to provide means for the water testing of all drains.

INSPECTION OF DAIRIES AND COWSHEDS, ETC., AND OF DAIRY CATTLE.

In my last annual report I entered somewhat fully into this question, and came to the conclusion that the inspection of Dairies and Cowsheds and of Dairy Cattle in this County is very unsatisfactory. There is nothing in most of the reports for the various districts to show that there has been any marked general improvement. The following table is compiled from the District Medical Officer's reports.

URBAN DISTRICTS	Number of Cow-keepers and Milk-sellers on Register	Number of Inspections.	Number of Notices, Verbal and Written.	Number of Notices complied with.	RURAL DISTRICTS.	Number of Cow-keepers and Milk-sellers on Register	Number of Inspections.	Number of Notices, Verbal and Written.	Number of Notices complied with.
Bishop's Castle ..	8	8	—	—	Atenham	63	111	37	32
Bridgnorth ..	24	all visited	—	—	Bridgnorth	15	25	—	—
Church Stretton ..	4	18	3	3	Burford	—	—	—	—
Dawley	23	57	11	10	Chirbury	—	—	—	—
Ellesmere	Visited quarterly.				Church Stretton ..	13	52	—	—
Ludlow	19	28	—	—	Cleobury Mortimer	7	—	—	—
Newport	20	65	20	12	Clun	4	16	4	4
Oakengates ..	24*	26	7	7	Drayton	20	—	—	—
Oswestry	121†	69	28	21	Ellesmere	20	40	10	10
Shrewsbury ..	22	—	—	—	Ludlow	21	All visited and found satisfactory.		
Wellington ..	16	13	—	—	Newport	15	18	1	—
Wem	—	—	—	—	Oswestry	47	60	6	6
Wenlock	28	116	2	2	Shifnal	41	198	51	51
Whitchurch ..	—	—	—	—	Teme	1	—	—	—
					Wellington	12	12	—	—
					Wem	0	—	—	—
					Whitchurch	14	no record	14	14

* 13 in Borough Oswestry.

† 31 outside Borough Shrewsbury.

In a few of the districts some effort appears to be made to bring these buildings into a sanitary condition, but it is evident that the inspection which is taking place in most of the districts can be no safeguard whatever to the milk supply.

In my report for 1904 I said "Of the three districts, Drayton, Wem and Ellesmere, which are three of the largest dairying districts in the County, practically no information is given." In Drayton, although a register is kept, the inspection of these places is still under consideration, or in other words nothing has so far been done.

In Wem Rural District a register is kept and regulations have been made and will come into force in May, 1906, but so far no inspections have been made.

In Ellesmere Rural District the cowsheds have been inspected and have received attention.

In the Atcham Rural District steps are being taken by the Inspectors to get all cowkeepers coming under the Order registered. This is a matter that should receive the attention of most of the other districts as the number of cowkeepers and milksellers on the registers is absurdly small. In Church Stretton Rural District the adoption of regulations was recommended, but the Council decided not to adopt them. In Shrewsbury more frequent inspection is recommended. In Wenlock regulations have been adopted but no inspections appear to have been made so far.

In Ludlow Borough the dairies, cowsheds, and milkshops have been properly inspected. The cowsheds and their surroundings are still capable of improvement. In Wellington Urban District the cowsheds call for a good deal of improvement. The sanitary inspector urges the Council to attend to this matter in the coming year.

At Oakengates the cowsheds and dairies have been carefully inspected, and Dr. Whitaker thinks on the whole these places may be considered fairly satisfactory.

In carrying out this inspection it is important always to keep clearly in view the object of the inspection, viz., to ensure the production of a clean and wholesome milk supply. It is obvious that to this end one's attention should not be given simply to the sanitary condition of the buildings but also to the methods employed. Cleanly habits amongst the milkers, careful grooming of the cows, cleanliness of the milk cans, cooling and rapid delivery of the milk should all be encouraged in every possible way. In fact, as in most other branches of sanitary reform, the surest progress is made by education of those concerned.

A supply of clean and wholesome milk is of such great importance, particularly to the inhabitants of our large towns, that it is safe to predict that unless the supervision of milk production is undertaken in a much more efficient manner than it is at present, the towns will insist upon controlling the inspection themselves. This is done by a few of the large towns to some extent at the present time.

The following extract from my report for the fourth quarter of the year shows how this system of inspection by large towns may act to the detriment of the County unless energetic local measures are also taken :—

“ I have had some correspondence with the Medical Officer of Health of Liverpool relative to some tuberculous dairy cattle at a farm situated in a rural district of this county. Although in this instance, there seemed to be no reason to suppose that any attempt was being made to dispose of milk from the suspicious animals locally, yet the whole correspondence with the Medical Officer of Health of Liverpool, and with the Clerk to the Rural Council, showed how absolutely one has to depend upon the fair dealing of the milk producer. The large towns are efficiently protecting themselves, but their action will be at the expense of the country districts unless these districts can take steps to ensure that milk that is prohibited from being sold in the towns is not sold locally.”

There is no inspection whatever of dairy cattle in the County, with the object of discovering cows with tuberculous udders and preventing the sale of milk obtained from them.

INSPECTION.

The particulars of the sanitary inspection in the various districts are given on Table VII. Judging from the numbers, the house inspection in the Rural District of Wellington and in the Urban and Rural Districts of Ludlow appears to be very inadequate. A systematic house to house inspection is the only satisfactory basis for sanitary work.

FACTORIES AND WORKSHOPS.

Details of the inspection of Factories and Workshops are given in the accompanying table. On the whole there is evidence that the administration of the act is improving.

SUMMARY FOR 1905.

[illegible]

SALE OF FOOD AND DRUGS.

Return shewing number, description, and result of Analysis of Samples taken under Food and Drugs Act in the County during year ended 31st December, 1905.

Nature of Sample	No. of Samples taken.	Results.		Remarks.
		Genuine.	Adulterated.	
Whisky	20	18	2	1 convicted and 1 dismissed.
Brandy	13	3	10	7 dismissed, 1 cautioned, and 2 protected by label.
Rum	8	5	3	1 cautioned, 1 dismissed, and 1 ordered to pay costs.
Gin	5	5	..	
Butter	23	23	..	
Lard	13	13	..	
Milk	53	46	7	2 convicted, 5 cautioned.
Coffee	10	9	1	Vendor convicted.
Pepper	16	16	..	
Arrowroot	3	3	..	
Oatmeal	5	5	..	
Mustard	1	1	..	
Cheese	3	3	..	
Ginger	11	11	..	
Flour	1	1	..	
Sugar	4	4	..	
Tea	27	27	..	
	216	193	23	

J. W. EDWARDS,

Deputy Chief Constable of Shropshire.

Shrewsbury, January 13th, 1906.

Sixty-one samples were taken in the Borough of Shrewsbury, of which 5 (3 of milk and 2 of coffee) were adulterated.

No samples were taken in the Borough of Wenlock.

The proportion of adulterated samples of milk was very considerable, being one in every seven and a half samples taken. The Magistrates do not, however, appear to have taken a serious view of these cases as only two of the vendors were convicted.

The energetic enforcement of the Food and Drugs Act with regard to milk supply is most important, as upon milk depends to a great extent the food of children for the first few years of life.

I would point out the necessity for taking samples of condensed milk. This form of milk is used to a considerable extent for feeding infants, and although its use should be discouraged where fresh milk can be obtained, it is obviously of the greatest importance that the purchaser, when asking for "condensed milk," shall obtain a substance from which none of the ingredients of milk have been abstracted.

I have previously pointed out the desirability of taking samples of various forms of tinned and preserved foods and of dairy produce for estimating the preservatives used. There can be no doubt of the injurious action of preservatives, not only directly, but because they hide the effects of want of cleanliness and they allow food that should be sold fresh to be sold in a more or less stale condition.

MEAT INSPECTION.

There is little or no reference to meat inspection in any of the district reports. During the year, I reported on the meat inspection in Newport and neighbourhood, and I recommended that a skilled Inspector be appointed for the following districts in combination—Newport Urban and Rural Districts, Wellington Urban and Rural Districts, and Oakengates. The importance of the rural districts joining in the combination lies in the fact that a considerable quantity of meat is dressed in slaughter houses in the rural districts. I also pointed out that if meat inspection is to be of use, the inspection must be made at the place where the animal is slaughtered, as it is impossible after the meat has been dressed and sent to the market to institute any inspection worthy of the name. From my investigations I formed the opinion that a considerable amount of suspicious meat was dressed in this neighbourhood and sent to towns both within and outside the County.

RAINFALL.

The rainfall particulars I have obtained from the various observers, who at considerable trouble to themselves have very kindly furnished me with full details.

STATIONS.				RAIN GAUGE.			DEPTH OF RAIN.		DAYS ON WHICH ·01 OR MORE RAIN FELL.		
				Diameter	Height above ground.	Height above sea level.	1904	1905	1904	1905	
				inches.	ft.	in.	feet.	inches.	inches.		
LUDLOW ..	..	(The Sheet) ..	..	5	1	0	370	26·14	26·53	178	181
BROMFIELD ..	..	(Oakley Park) ..	..	5	1	0	300	24·55	26·11	213	207
" ..	..	(Vicarage) ..	..	5	1	0	300	24·54	26·64	177	161
CLUNBURY ..	..	(Vicarage) ..	..	5	1	0	497	26·14	26·44	163	146
BISHOP'S CASTLE.	..	(Totterton) ..	..	5	0	7	700	..	26·53	..	..
" ..	..	(Castle Street) ..	..	5	2	0	720	26·87	24·0	178	185
" ..	..	(Lydham Manor) ..	..	8	1	6	740	24·38	20·4	..	..
" ..	..	(More Rectory) ..	..	6	1	0	600	24·89	23·46	193	..
BRIDGNORTH ..	..	(Coton Hall) ..	..	12	1	6	460	23·89	23·06	155	156
" ..	..	(Hookfield House) ..	..	5	1	0	273	22·11	23·44	206	199
" ..	..	(Cantreyn Cottage) ..	..	6½	4	6	320	19·48	21·07	142	139
BROSELEY ..	..	(Willey Park) ..	..	5	1	0	502	23·68	25·77	184	169
CRAVEN ARMS ..	..	(Stokesay Vicarage) ..	..	5	1	0	371	24·13	25·83	166	..
WOOLSTASTON ..	..	(The Rectory) ..	..	5	1	0	800	26·66	26·16	201	184
PONTESBURY ..	..	(Somerville) ..	..	5	1	6	355	22·23	23·83	152	152
MINSTERLEY ..	..	(Hampton Hall) ..	..	..	1	0	630	..	23·65	..	..
WESTBURY ..	..	(Wallop) ..	..	8	1	6	700	33·9	29·85	181	180
SHREWSBURY ..	..	(Abbey House) ..	..	8	1	3	171	20·33	18·5	173	166
" ..	..	(Corporation Gauge) ..	..	8	1	3	174	..	21·02	..	135
" ..	..	(Highfield) ..	..	5	4	6	250	21·11	19·52	171	163
" ..	..	(Fitz Rectory) ..	..	5	1	2	238	24·77	22·3	215	203
" ..	..	(Fitz Manor) ..	..	..	..	..	..	..	..	..	..
SHIFNAL ..	..	(Hatton Grange) ..	..	5	4	4	251	22·86	21·34	..	..
" ..	..	(Neachley) ..	..	6	1	6	280	..	23·21	..	181
NEWPORT ..	..	(Aston Hall) ..	..	5	0	9	280	21·73	21·74	176	178
" ..	..	(Agricultural College) ..	..	5	1	0	210	20·17	19·82	173	177
" ..	..	(Edgmond) ..	..	8	1	0	261	22·01	21·46	193	180
MARKET DRAYTON	..	(Buntingsdale) ..	..	8	3	0	276	26·44	25·48	..	..
ELLESMERE ..	..	(The Grange) ..	..	5	0	10	..	25·88	26·06	..	..
OSWESTRY ..	..	(The Mount Reservoir) ..	..	5	1	0	698	30·15	28·27	175	180

MIDWIVES ACT.

The steps that were taken to make the Act known to all practising midwives in the County and the arrangements that were made for carrying it out by the County Council were fully stated in my Annual Report for 1904.

The number of midwives who have become certified and have notified to me their intention to practise has greatly exceeded the estimate formed. The original estimate was 200, whilst the number of midwives at present practising in the County is 346.

Since the beginning of the year 1906, 352 midwives have notified me of their intention to practise, but of these 3 have since died and 3 have notified me that they have ceased to practise. Twenty-two of these midwives, although practising in the county, live outside its boundaries. Of the 346 midwives in practice only 72 have certificates representing a certain amount of training, whilst the remaining 274 are on the roll in virtue of having been in practice as midwives for twelve months prior to July 1st, 1902.

The following facts will give some idea of the general social condition of the midwives and their capacity for work in future years.

Speaking approximately—

95 of the midwives are between 50 and 60 years of age.

99 of the midwives are between 60 and 70 years of age.

28 of the midwives are 70 years of age and upwards.

One hundred and ninety-two are married, 58 are single, and 96 widowed. Only a comparatively small number depend upon midwifery as their sole means of livelihood, nor is it possible with the present scale of fees for women to earn a decent living from midwifery alone in the more thinly populated districts. Eighty-five of the midwives cannot write, and a much larger number cannot write sufficiently to keep their registers without help.

It is obvious from the above description that in the next few years a very large number of these midwives, from one cause or another, will cease to practise, and it must be remembered that their places can only be taken by properly trained women. It is not suggested that as many trained midwives will be required as we have at present of untrained ones. Probably it will be possible to exercise very great economy, but the number must always be large owing to the large area to be covered and the difficulties of locomotion.

As the amount of money that can be earned by a midwife in a country district is not sufficient to tempt her to pay for what is a comparatively expensive training, the training must be provided free or the supply will fail. The Shropshire Nursing Federation has had this aspect of the question under their consideration, and it is probable that energetic action will be taken. The County Council has for many years paid for the training of a certain number of midwives averaging about 5 each year, at a cost of about £35 each midwife.

It is extremely desirable, as suggested by Dr. Niven, that the Central Midwives Board should publish, for the use of the Local Supervising Authorities, details of all the training institutions in the country, and that Local Supervising Authorities should be requested to furnish reports on all training institutions in their districts. The information would be most useful to the Supervising Authorities, and the general effect upon the training institutions would be good.

There is the further difficult problem of how to maintain midwives in the thinly populated districts where the fees alone are not sufficient. This difficulty can only be met through the formation of nursing associations. The Shropshire Nursing Federation has fully recognised this fact and is shaping its policy accordingly. The number of midwives in each district is set out here in tabular form and the table will give some idea of the districts where midwives are most likely to be required in the immediate future.

MIDWIVES IN SANITARY DISTRICTS.

RURAL DISTRICT OF	Number of Midwives.	Number of Midwives per 10,000 population	URBAN DISTRICT OF	Number of Midwives.	Number of Midwives per 10,000 population
Atcham	32	15	Bishop's Castle ..	2	15
Bridgnorth	14	16	Bridgnorth	3	5
Burford	1	8	Church Stretton ..	3	26
Chirbury	11	31	Dawley	8	10
Church Stretton ..	6	13	Ellesmere	2	10
Cleobury Mortimer ..	9	14	Ludlow	3	5
Clun	19	28	Newport	9	28
Drayton	16	14	Oakengates	9	8
Ellesmere	11	14	Oswestry	8	8
Ludlow	17	18	Shrewsbury	26	9
Newport	3	5	Wellington	5	6
Oswestry	40	27	Wem	5	23
Shifnal	15	17	Wenlock	16	10
Teme	10	54	Whitchurch	9	17
Wellington	14	12			
Wem	11	13			
Whitchurch	9	47			

The following tabular statement gives the number of visits paid in each quarter of the year by the Inspector of Midwives and the number of notifications of various kinds received :—

	Visits paid.	Notifications of having sent for medical help.	Notifications of still-births.	Notifications of death of mother or child with no medical man in attendance.
First Quarter	142	..	..	..
Second Quarter	230	..	..	..
Third Quarter	142	44	21	3
Fourth Quarter	128	39	17	2
Total	642	83	38	5

In the winter months Miss Frith was engaged for a very considerable part of her time in lecturing for the Higher Education Committee, and during the third quarter there was an exceptional amount of clerical work in connection with the completion of the register and the commencement of a proper system of keeping records and reports, and this accounts for the comparatively small number of inspections during those quarters.

The number of notifications undoubtedly only represent a fraction of those that should have been sent, but when it is remembered that the Act has only been in practical operation for a short time, and that the majority of the midwives are very illiterate, the success, so far, is as great as could be expected.

The amount of inspection that Miss Frith has been able to give is, however, not adequate. As previously pointed out the estimate of the inspections that would be necessary was based on 200 midwives, whilst the actual number is 350. Nor can the work be gauged by the number of midwives on the roll. Their general education and fitness for the work must be taken into consideration. For example in the town of Manchester, where the Midwives Act is administered very thoroughly, there are for a population of 637,000, only 174 certified midwives on the roll, or one midwife for every 3,600 persons, whereas in Shropshire there are 346 for a population of 240,000, or one midwife for every 700 of the population. It is obvious that the conditions are entirely different and that the incentives to improve and properly qualify themselves for what is in large towns a fairly lucrative work, must be much greater there than in the country. Nor is it possible, at least at present, to insist upon the same efficiency in the country, that may legitimately be aimed at in the large towns.

It has not been possible so far to systematically inquire into the still-births notified; yet the fact that they have to be notified and that they may be inquired into must have a salutary effect. If some system could be devised for checking these notifications it would be more satisfactory.

Fifteen cases of puerperal fever were reported to me during the year and were carefully investigated. It is unnecessary to enter into detail with regard to these cases as they have already been dealt with in my quarterly reports.

It has been found necessary to suspend eight midwives during the year in order to prevent the spread of infection and for breaches of the rules.

I have found the reports, which the police have kindly sent me, of deaths that they have inquired into, have been of great use. They have been particularly useful in the case of children who have died before a medical man has been in attendance. A very prevalent idea amongst the more ignorant of the midwives is that the real object of sending for medical help for sick infants is so as to be able to get a certificate in case of death. There can be little doubt, that by insisting firmly upon the rules relating to this matter, certain forms of infantile deaths will be considerably reduced.

No case of malpractice, negligence, or misconduct, of sufficiently serious a nature considering the newness of the Act, to justify one in recommending an investigation prior to reporting to the Central Midwives Board, has come under my notice. In this connection I would call attention to a suggestion made by Dr. Niven, that the Central Midwives Board be asked to supply the Local Supervising Authorities with copies of their proceedings or with such parts as would serve as a useful guide. Perhaps a more practical suggestion would be to ask the Central Midwives Board to publish their reports in a convenient form.

The results of the inspection on the whole have been fairly satisfactory. Miss Frith reports greater attention to cleanliness, including the wearing of clean cotton dresses and the use of disinfectants. Undoubtedly, midwives are much more careful now, than formerly, to send for medical help in case of illness or abnormality. Great improvement has taken place in the keeping of the registers and records, and generally in obeying the rules.

A book of instructions setting out in plain simple language the duties of a midwife under the Act, directions for the use of disinfectants, directions with regard to the cleanliness of the lying-in room, and the management of labour, and for the care of the mother and child, together with the precautions to be observed in puerperal fever, has been sent to every certified midwife. Miss Frith has found that the book has been carefully read by a large number of the midwives and she finds it to be of great use as a basis for her instructions.

I have issued a pamphlet on Infant Feeding for distribution and explanation by the midwives to the mothers they attend. I have great hopes that later on, when the education of midwives has advanced, this Act, if properly worked, will become a powerful factor in the reduction of infantile mortality.

The question of the practicability of instituting lectures for midwives is now being considered by the Local Supervising Authority.

Part II.

**Abstracts, etc., of Annual Reports of the
Medical Officers of Health for the
Various Districts.**

ATCHAM (Rural).

Medical Officer of Health M. GEPP, L.R.C.P.E., D.P.H.

<i>Area in Acres .. .. .</i>	..	..	..	..	..	..	125,207
<i>Population</i>						at 1901 Census	20,895
<i>Number of inhabited houses</i>						„	4,329
<i>Number of persons per house</i>						„	4.8

General Character of the District.

“The District is a very large one, some 22 miles in length by some 14 in extreme breadth, its area being 125,207 acres. The River Severn runs through it from north-west to south-east dividing it into two parts, of which the Northern and smaller part is continuous with the Midland plain, or the New Red Sandstone. The general elevation of this part is from 200 to 300 feet, O.D. The Southern and larger part is more elevated, rising gradually from the river, southward and westward, from 200 to some 600 feet, O.D., with considerably greater elevations on the hillsides forming the western and southern borders. The Geological formation of this part is broken and diverse. The hills are the outliers of the Cambrian and Silurian ranges of Wales and Shropshire, and these formations project into the District. There are also detached but considerable exposures of the coal measures, and of the Permian Red Sandstone. There is in both parts a variable, but generally considerable, thickness of drift overlying the strata. The drainage is on both sides to the Severn, by numerous small tributary streams. The Borough and County town of Shrewsbury lies nearly in the centre of the District.”

“The District is entirely rural in character, for the most part fertile and highly cultivated, “and supporting a comparatively large agricultural population, distributed in numerous “important villages, in smaller hamlets, and largely also in scattered isolated dwelling “houses. The density of population is equal to about 108 persons to the square mile. A few “coal mines are worked around Hanwood, but many parts of the small coalfields are “abandoned.”

Statistics.

The natural increase during the year was 66. The population at the middle of 1905 is estimated at 20,820, and corrected for public institutions, 19,850.

[illegible]

The zymotic death-rate was due to 1 death from scarlet fever, 7 from diphtheria, and 4 from diarrhoea.

Infectious Disease.—Ninety-four cases of scarlet fever, 26 of diphtheria, 5 of enteric fever, and 15 of erysipelas, were notified. The principal outbreaks of scarlet fever were in the third quarter of the year, 42 cases in Berrington and Atcham parishes, 17 in Minsterley and neighbourhood, and 10 in Leaton and Berwick. *Diphtheria.*—Special reports have been made on outbreaks at Broadoak, accounting for 12 cases and 6 deaths, and smaller outbreaks at Bomere Heath and Shrawardine. Dr. Gepp reports that the Council has decided to supply antitoxin in the future, and he suggests that the Education Authority should organise a scheme for the bacteriological examination of school children. He also recommends the Council to pay a small fee to medical men for taking swabs to determine freedom from infection. Of the five cases of enteric fever, one was probably due to defective sanitary arrangements, and the source of the others was quite obscure.

Non-notifiable Infectious Disease.—Much less prevalence than usual. Eight schools were closed on account of infectious disease.

Hospital Isolation.—The Council possesses a Berthon Hut and a small tent. The acquisition of a site and erection of a cottage as a nucleus is recommended to deal with any outbreak of small-pox or serious outbreaks of other infectious disease; or better still, as the district is so large, three cottages suitably placed.

Disinfection.—Rooms are sprayed in nearly all cases by Council's officers with Formalin or Cyllin. The Council possesses a portable steam disinfectant.

Vaccination.—Primary vaccination is good; very few children escape.

House Accommodation.—There is a large number of old and worn-out houses, with many defects, and the new houses built each year are quite insufficient to replace them. There is ample yard and garden space.

House to House Inspection.—The district was divided in 1904 and an Inspector appointed for the Eastern division, the Western remaining under the Surveyor. "This division has resulted in good sanitary progress being made in both areas, especially in pushing on the systematic house to house inspection."

One house was certified and closed as unfit for habitation without proceedings.

Supervision of New Houses.—Plans for 27 houses were passed in those areas in which bye-laws are in force. A new Code of Bye-laws of wider application and more elastic have been submitted for approval.

Sewerage and Drainage.—Several of the larger villages are sewered—Meole, Pontesbury, Minsterley, Bayston Hill, and Dorrington. Some improvements have been made with regard to sewerage of Meole and Bayston Hill.

Excrement Disposal.—Except in Meole Brace, the excrement disposal is principally by earth closets and privies with underground vaults. The latter are often objectionable, and 84 have been converted during the year to earth or pail closets.

Removal and Disposal of House Refuse—by householders.

Water Supply.—Dr. Gepp refers to his previous reports on the objectionable situation and structure of wells supplying single houses and groups of houses, and the powers the Council possesses for dealing with this matter. With regard to new wells, he says the site should be approved before the work is begun and the walls of the well made watertight from a few inches above the ground to a depth of 8 feet, or to the water level, if this is at a less depth.

Improvements to pumps and wells have been made at Great Ruyton, Hook-a-gate, Frodesley, Branbrook, and Sharpstones at Bayston Hill, Bomere Heath, Dorrington, Asterley, and Westbury.

Bicton.—The tanks have been cleaned and iron pipes laid from the spring. *Horsebridge*.—A new pump and lead suction pipe have been provided. *Pontesbury Hill*.—A cottage with garden containing a well has been purchased, the well improved and connected to a pump on the roadside. *Meole Brace*.—A wooden tank, holding 12,000 gallons, has been provided at the colliery, and the 3 inch main has been replaced by a 4 inch. At Berwick and Leaton there have been complaints of scarcity. At Berwick, the owner has deepened a well by the roadside, from 30 to 120 feet—the work is still in progress. It is said that steps are being taken at Leaton to improve the supply. At Ruckley a small scheme, with a wind engine, has been carried out for 8 or 10 houses. It might be laid on to 3 or 4 houses at Langley with advantage.

Slaughter-houses.—9 on register in special contributory areas—reported to be in fair condition.

Dairies and Cowsheds.—63 on register. Steps are being taken by the Sanitary Inspectors to see that all cowkeepers coming under the Order shall be registered, and that the cowsheds are kept in accordance with the Order and Regulations.

BISHOP'S CASTLE (Urban).

Medical Officer of Health M. GEPP, L.R.C.P.E., D.P.H.

<i>Area in Acres</i>	..	..	..	..	..	1,867
<i>Population</i>		<i>at 1901 Census</i>	..	..	..	1,378
<i>Number of inhabited houses</i>		..	..	..	..	354
<i>Number of persons per house</i>		..	..	..	..	3.9

Physical Features and General Character of the District.

“The Borough comprises 1,867 acres of agricultural land, and forms an area some three miles in length, by a mean breadth of about 1 mile, having the small town of Bishop’s Castle about the centre. The elevation varies from about 500 feet O.D. in the valley at the south-east end, to 1,000 feet or more in the hill country forming the north-west end. The town lies on a hill side rising out of the valley, the main street rising steeply from about 600 feet to 700 feet O.D., and the houses are placed on either side of the street, and about the crest of the hill above it. The sub-soil is the Wenlock and Ludlow beds of Upper Silurian age. The natural drainage is from north and west to south and east by small streams, the district lying upon the watershed of the Teme. In the town some small streamlets have been culverted about the foot of the hill, and are practically sewers. Outside the town proper, the area is very sparsely populated. The town is a market town.”

Statistics.

The natural increase during the year was 9. The population at the middle of 1905 is estimated at 1,340, and corrected for public institutions, 1,320.

[illegible]

The zymotic death-rate was due to two deaths from diarrhœa.

Infantile Mortality was due to five deaths ; one from premature birth and the other four from causes that may be considered preventable by proper knowledge of feeding and rearing of infants.

Infectious Disease.—One case of enteric fever, one of puerperal fever, and one of erysipelas were notified. The origin of the case of enteric fever was doubtful. The case of puerperal fever had been attended by a midwife.

Whooping Cough was prevalent in the last quarter of the year and led to closure of the infants' and mixed school.

Hospital Accommodation.—There is no isolation hospital but the Council has the right to use an isolated cottage in case of smallpox.

Disinfection by occupier or owner, disinfectants being provided by the Council where necessary.

House Accommodation is adequate in amount but the majority of the cottages are old and many are of poor construction. The space about the cottages is fair, and surroundings fairly clean, although there are a good many exceptions. The old property requires regular and systematic inspection.

Sewerage and Drainage.—The centre of the town and a considerable part of the main street is sewered on modern lines. About the crest of the hill there are some rough stone road water drains acting as sewers and discharging at various points on to the land. At the bottom of the hill are three or four stone culverts acting as the main sewage carriers to the outfalls. The outfalls are at two or three points on almost level ground, and the sewage is disposed of by irrigation. A scheme of sewerage and sewage disposal has been got out and is now awaiting arrangements as to land.

Excrement Disposal.—A number of the houses have water closets, but the majority have old vault privies. A proper sewerage scheme is required to allow of the conversion of many of these objectionable privies.

Scavenging of privies and house refuse is done by occupiers. The Council has provided a tip.

Water Supply is upland surface water from uncultivated land five or six miles to the west of the town. The water is collected in a storage reservoir, piped to a service reservoir and then filtered through sand and gravel filters. The service reservoir has given some trouble from leakage, and recently the water has been taken direct from the feeding stream without using the storage.

Slaughter-houses 4, *Common Lodging Houses* 1, looked after by the Inspector under the Bye-laws in force.

Dairies and Cowsheds.—There are 8 cowkeepers and milk-sellers on the register. The Model Regulations are in force.

Bye-laws for the prevention of nuisances and cleansing of streets are in force in the Borough.

BRIDGNORTH (Urban).

<i>Medical Officer of Health</i> ..		..	J. C. PADWICK, M.R.C.S., L.R.C.P.			
<i>Area in Acres</i> ..	..	..	..	..	..	3,018
<i>Population</i>	<i>at 1901 Census</i>		..	..	..	6,052
<i>Number of inhabited houses</i>		..	..	..	..	1,300
<i>Number of persons per house</i>		..	..	..	..	4.6

Statistics.

The natural increase of the population during the year was 30. The population at the middle of 1905 is estimated at 6,052.

Period	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1905	17·5	·66	·0	·82	·99	1·3	1·9	1·1	1·4	54	24·3
Averages for years 1895-1904	16·3	..	..	..	..	..	..	..	..	126	25·0

Forty of the deaths were of persons over 65 years of age and 8 were due to accidents.

Infectious Diseases.—One case of diphtheria, 8 of scarlet fever, 4 of enteric fever, and 4 of phthisis were notified. One case of enteric fever and 6 of scarlet fever were removed to the isolation hospital.

Refuse.—Attention is called to the unhealthy habit of throwing slops into the street.

Water Supply.—The river water supply was satisfactory, but increased filtering area would be an advantage. This subject will probably occupy the attention of the Waterworks Committee during the coming year. There was some anxiety with regard to the supply of drinking water from Oldbury wells. It, however, proved sufficient.

Milk Supply.—Various samples of milk have been taken and have come up to the required standard.

The Dairies, 24 in number, and *Cowsheds* have been visited and found in a sanitary condition.

BRIDGNORTH (Rural).

Medical Officer of Health J. C. PADWICK, M.R.C.S., L.R.C.P.

<i>Area in Acres</i>	70,521
<i>Population</i> <i>at 1901 Census</i>	8,573
<i>Number of inhabited houses</i>	1,886
<i>Number of persons per house</i>	4·5

Statistics.

The natural increase of the population was 121.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1905	13·2	0·0	0·0	1·0	·23	·81	·93	2·1	·46	71	26·0
Averages for years 1898-1904	13·3	..	..	..	..	..	..	..	..	104	26·2

Nine cases of scarlet fever, one of diphtheria, one of erysipelas, 2 of enteric fever, and one of puerperal fever were notified. Three schools were closed on account of infectious disease—scarlet fever, measles, and diphtheria—two of them being closed on two occasions.

Water Supply.—"The water supply generally was very scarce during the last six months of the year owing to deficient rainfall. Three public wells (Woundale, Wall Hill near Chyknell, and Eardington) were dry for several months, also many private wells. Six of the latter were cleaned out on account of contamination with drainage. The new ram at Alveley, which was put in last year has given much trouble. The village has been without water on several occasions for more than a week. This is a serious matter and should occupy the attention of the Council."

Dairies and Cow-houses have been inspected and minor improvements made. The dairies are limewashed once a year.

The Schools and Workshops have been inspected and found satisfactory.

BURFORD (Rural).

Medical Officer of Health ... E. T. WHITAKER, M.B., B.Sc., D.P.H.

<i>Area in acres</i>	...	...	...	...	...	...	...	...	...	7,798
<i>Population</i>	...	at 1901	<i>Census</i>	...	...	...	...	...	...	1,233
<i>Number of inhabited houses</i>	„	...	...	...	...	...	...	...	...	263
<i>Number of persons per house</i>	„	...	...	...	...	...	...	...	...	4·7

General Characters.

"Burford is the smallest rural district in the County, both as regards area and population. Lying on the southern slope of the Clee Hill, the houses are thinly scattered through the district, in no part at all approaching urban characters."

Statistics.

The natural increase of the population during the year was 18. The population at the middle of 1905 is estimated at 1233.

Of the 43 deaths, 22 were of persons over 65 years of age, the average age at death of these 22 persons being 75.

The Infantile Mortality was very low for the year. Attention is drawn to the difficulty of obtaining new milk for infants.

Infectious Diseases.—Five cases of diphtheria, two of erysipelas, and two of scarlet fever were notified. The outbreak of diphtheria started and spread from a common Lodging House.

Water Supply.—At Bromlow a new well has been sunk and a pipe is being fixed. The water supply of the district has been fairly good.

CHURCH STRETTON (Urban).

<i>Medical Officer of Health</i>	M. GEPP, L.R.C.P.E., D.P.H.	
<i>Area in Acres</i>		982
<i>Population</i>	at 1901 Census	816
<i>Number of inhabited houses</i>		147
<i>Number of persons per house</i>		5·5

Physical Features and General Character of the District.

“The District comprises the small ancient town of Church Stretton, lying in an open valley running nearly north and south, 600 feet above sea level, together with the lower slopes of the bold hills which form the sides of this valley. The area is 982 acres. The sub-soil of the valley is glacial drift, generally of dry and well-drained gravel, the hillsides to the west being of hard Longmyndian rock strata, of Pre-Cambrian age, those to the east being also of hard rock, of Ordovician age. The town lies on the crest of a watershed, the natural drainage of the valley being on the north towards the Severn, and on the south towards the Teme, the fall being gentle in either direction. The situation is one of great natural beauty and healthiness, and in consequence the number of residents and visitors has for some years been increasing. The Urban District was constituted in 1890.

“The area of development and of new building is being rapidly extended, and the character of the place is becoming more and more that of a modern residential district, and a health and holiday resort of good class, for which its open elevated situation and beauty of surroundings well fit it.

"Climate, soil, aspect, and natural drainage are favourable to a high standard of health
"such as it certainly enjoys."

Statistics.

The natural increase of the population during the year was 4. The population at the middle of 1905 is estimated at 1,400, and corrected for public institutions, 1,340

[illegible]

These statistics must be regarded as approximate only, on account of the difficulty of accurately estimating the rapidly growing population. At the Census 1901 the population was 816, and the inhabited houses 147 ; since then 186 new buildings have been put on the rate books.

There was no death from any of the chief zymotic diseases. The high infantile mortality was due to one death from premature birth, one from congenital defects, one from pneumonia, and one infant found dead in bed, and has no significance.

Infectious Disease.—One case of scarlet fever of obscure origin was the only case notified.

Hospital Isolation—none. The Council has inspected two cottages, but neither was suitable. It is advised that a site be procured and a cottage built as a beginning.

Disinfection.—The Inspector has been provided with a sprayer.

House Accommodation.—The greater number of the houses are new villa residences. There has been little building of cottages. A few of the cottages are old and worn out.

The Sanitary Inspector is engaged on a house to house inspection.

New Houses.—Bye-laws for new streets and buildings are now in operation. Plans were passed during the year for 37 buildings, of which 27 were dwelling houses.

Sewerage and Drainage.—The scheme for the sewerage and treatment of the sewage was completed during the year. The old system of sewers has been connected to the new, and it only remains to connect up the houses not connected. New drains have to be laid according to the bye-laws and drainage regulations. Improvement of the old drainage to bring it up to existing standards should receive careful attention.

Dr. Gepp suggests that the testing of house drains, on application of the tenants, should be done by the Council, a fee being charged and a certificate granted where the drains conform to the byelaws and regulations and stand the test applied. He says that he has no doubt the possibility of obtaining such a certificate annually would lead to good drainage systems being kept in order, and also to the levelling up of old and indifferent systems to a good standard.

Excrement Disposal mostly by water closets. There are a few privies with underground vaults which the Council will mostly be able to abolish or convert to water closets.

Scavenging is done regularly by the Council.

Water Supply.—The district is amply supplied with soft upland water by the Church Stretton Water Company. There are two reservoirs, (1) The Main Reservoir in New Pool Hollow, 12 million gallons capacity, 1000 O.D., fed from two valleys ; (2) A small Reservoir in Town Brook Hollow, 800 feet O.D., fed from the Hollow and from a pipe from the main reservoir. The water comes off the hard shales and slates of the Longmynd strata. The gathering grounds are uncultivated and uninhabited, and the only risk of contamination is from the use of the frequented foot paths that follow two of the main feeding streams. The water is not filtered. The size of the large reservoir is a great safeguard, but filtration of the water from the small reservoir is desirable.

Bye-laws and Regulations.—Model Bye-laws for Slaughter-houses and Model Regulations for Dairies, Cowsheds and Milkshops are adopted. There are two slaughter-houses and two cowsheds. One of the cow-sheds is old and dilapidated and will require reconstruction.

CHURCH STRETTON (Rural).

<i>Medical Officer of Health</i>		M. GEPP, L.R.C.P.E., D.P.H.			
<i>Area in Acres</i> .. ..	.. ..	.. ..	.. ..	.. ..	45,103
<i>Population</i>	<i>at 1901 Census</i>		.. ..	.. ..	4,479
<i>Number of inhabited houses</i>	,,		.. ..	.. ..	1,005
<i>Number of persons per house</i>	,,		.. ..	.. ..	4.4

Physical Features and General Character of the District.

"The District is one of hills and dales, highest across the centre from West to East, and sloping to the North and South. The Northern part lies on the Southern Watershed of the Severn, the Southern part on the Northern Watershed of the Teme, the various small streams arising on its uplands and running off through the valleys to the North or South affording good natural drainage. The elevation varies from 1700 feet at the summit of the Longmynd to some 400 feet at the northern and southern limits of the District. Three ranges of hills run through it from S.W. to N.E., the 'Longmynd' range along the Western side, the 'Caradoc' in the middle, and the escarpment of 'Wenlock Edge' runs through its Eastern border. Between these ranges are fertile valleys with several villages and many isolated farms and cottages. The hillsides are largely cultivated, but are in part uninhabited moorlands. The sub-soil is that of some of the oldest Geological formations, Archæan on the West, Ordovician largely in the centre, and Silurian on the East, with a small and unimportant exposure of Coal measures at the Northern end. These measures are not now worked. The District is entirely rural and agricultural, with a sparse and scattered population."

"In a District of this character, while small schemes of sewerage or of water supply to villages may be, and have been, from time to time found necessary, the essential matter is practical attention to the sanitary condition of individual houses and their surroundings. The Sanitary Inspector is engaged in making a house to house inspection of the District . . ."

Statistics.

The natural increase of the population for the year was 23. The population at the middle of 1905 is estimated at 4,430, and corrected for public institutions 4490.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1905	16·9	·44	·89	·89	·0	·67	·89	2·4	1·3	73	21·4
Averages for years 1897-1904	13·5	..	..	..	..	..	..	..	..	90	22·9

The high death rate is accounted for to some extent by the large proportion of old people ; 55% of the deaths were of persons of 65 years of age or more.

The zymotic death-rate was due to one death from diphtheria and one from diarrhœa.

Infantile Mortality.—Of the 7 deaths of infants, 2 were due to premature birth and 4 to disorders of nutrition, largely preventable by proper care in feeding.

Infectious Disease.—Six cases of scarlet fever, 6 of diphtheria, and 1 of erysipelas were notified. Five of the cases of scarlet fever occurred in one house. A small outbreak of three cases of diphtheria at Rushbury well illustrates the danger from prolonged infection. A child taken ill in another district early in July recovered and came home on August 21st, after disinfection of the house. On September 9th a brother caught the disease and died, and a third case followed. The child had evidently remained infectious for a period of between two and three months.

Hospital Isolation.—None. A site was obtained in 1903 conjointly with the Urban District.

Disinfection.—The Inspector sprays infected rooms. Disinfection of rooms after the death or removal of a consumptive person is recommended.

House Accommodation.—The cottages are, speaking generally, small and old, and many are in a worn-out condition. The population tends to diminish and there is little building. Attention is required to keep the old property in as good a condition as possible.

Overcrowding.—Three cases were dealt with during the year.

Sewerage and Drainage.—Mostly that of individual houses. In the village of Wistanstow, All Stretton, Little Stretton, and Cardington house drains have been connected to road drains, and discharge either into streams or on to land. The Sanitary Inspector sees to the periodical cleansing of the outfalls. In the hamlets of Picklescote and Wall some lengths of public sewers have been laid.

Excrement Disposal.—Mostly by privies with underground vaults. The conversion to earth-closets of privies, objectionable on account of situation or structure, is recommended.

Removal and Disposal of House Refuse.—By occupiers.

Water Supply.—There is no public water supply in the district, but a number of private systems of supply exist, *e.g.*, at Leebotwood, Wistanstow, and Woolstone. All Stretton and Little Stretton are supplied from dammed up streams of upland surface water, liable to discolouration from decaying vegetable matter. All Stretton is supplied by a small local company and Little Stretton by the Church Stretton Water Company. Complaints of the water of Little Stretton arose during the year, and the remedy would be either to improve the present supply or to lay on water from the Church Stretton mains. At Rushmoor and the Corner in Wistanstow parish and at Picklescote, water has to be carried a considerable distance from springs. A good number of farms have had spring supplies laid on, and altogether there has been much improvement in the last ten years.

Common Lodging Houses.—One—visited periodically.

Dairies and Cowsheds.—13 on register—visited quarterly. The adoption of regulations was recommended, but the Council decided against this.

CLEOBURY MORTIMER (Rural).

<i>Medical Officer of Health</i> ...					E. T. WHITAKER, M.B., B.Sc., D.P.H.				
<i>Area in Acres</i>	...	...	...	...	...	...	...	...	44,338
<i>Population</i>	<i>at 1901 Census</i>				...	...	...	...	6,720
<i>Number of inhabited houses</i>	,,				...	...	...	...	1,292
<i>Number of persons per house</i>	,,				...	...	...	...	5.2

General Characters.

“The population is very thinly scattered over the district, only the small town of Cleobury really approaching an urban character, though Highley, a mining village in the north of the district, is rapidly progressing towards that condition.”

Statistics.

The natural increase of the population during the year was 91. The population at the middle of 1905 is estimated at 6450.

Period.	Death-rates per 1,000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases.	Cancer.		
1905	12·8	·93	·0	·46	·46	·77	1·7	2·4	·62	51	26·9
..

With regard to the infantile death-rate Dr. Whitaker says, "Four died from wasting diseases, 4 from diarrhoea and enteritis, and one from convulsions, thus, whilst the rate is so low, there is no diminution in the number who died from want of proper management and feeding."

Infectious Disease.—Seven cases of scarlet fever, 3 of diphtheria, and one of enteric fever were notified. Measles was epidemic in Highley in the winter months, and the school was closed.

Housing Accommodation.—A systematic inspection has been carried out. There has been a gradual improvement in the cottages.

Drainage and Scavenage.—At Cleobury the discharge of untreated sewage into the river Lea will require attention.

The scavenging of Highley is unsatisfactory.

Water supply.—Houses are in want of a pure water supply in several parts of the Clee Hills. The supply to Highley is satisfactory so far as it goes.

The Factory Act has little application. The few places which come within its provision are inspected and dealt with.

There are only 7 cowkeepers on the register and the premises were found satisfactory.

The Slaughter-houses still need improvement.

Nuisances.—There is much work done in this department.

CLUN (Rural).

<i>Medical Officer of Health</i>	M. GEPP, L.R.C.P.E., D.P.H.
<i>Area in acres</i>	82,206
<i>Population</i>	at 1901 Census 6,824
<i>Number of inhabited houses</i>	1,487
<i>Number of persons per house</i>	4.6

Physical Features and General Character of the District.

"The District comprises 82,206 acres, lying in the south-west of the County, and on the "borders of Wales. It is essentially a hill country, much of the District lying at an elevation "of 1,000 feet and upwards, especially on the northern and western parts. The centre and "south-eastern part consists of open valleys from about 400 to over 600 feet in elevation, and "broken and divided by small groups of hills. The main structure is that of an old elevated "table land much dissected and weathered down.

"The Geological formation is much broken, the Upper and Lower Silurian and Ordovician measures being exposed in considerable areas, with less extensive exposures of the Old Red Sandstone, and of Cambrian and Pre-Cambrian measures. The natural drainage is by various streams rising in the hill country to north and west, and forming the small rivers Onny and Clun, which leave the District through the valleys on the east and south-east to join the Teme.

"The District is sparsely populated, and agricultural in character, much of the hill country being cultivated or grazed.

"A small area in the north has in the past been worked for lead and other minerals, but these industries have much declined in recent years. The District contains the small town of Clun, and several villages of small size which are principally placed in the valleys and some smaller hamlets and many isolated houses scattered about the hill country."

Statistics.

The natural increase of the population during the year was 73. The population at the middle of 1905 is estimated at 6,660, and corrected for public institutions, 6680.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases.	Cancer.		
1905	15·4	·89	·15	·59	·0	1·0	·30	2·7	·59	113	25·1
Averages for years 1897-1904	15·1	..	..	..	..	..	..	..	..	91	25·0

The zymotic death-rate was due to 4 deaths from whooping cough, one from diphtheria, and one from diarrhoea.

Infantile Mortality.—Eight or nine of the deaths were from causes that may be considered avoidable.

Infectious Disease.—Eighteen cases of scarlet fever, 5 of diphtheria, and 1 of enteric fever were notified. The cases of scarlet fever principally affected the parish of Clungunford. Two cases were imported and one case was apparently infected in the train. An outbreak of diphtheria at Broadmoor was of a very malignant type. "Only one death was registered in the District as due to diphtheria, but three young children died in this house between February 11th and 19th, and two certainly, and probably all, were due to diphtheria." There were four other children in the house who escaped. The case of enteric fever was at an outlying house in Clungunford Parish. Whooping Cough led to the closure of Clun and Newcastle schools.

Hospital Isolation.—There is no Isolation hospital. In the Bishop's Castle Division there is an unoccupied cottage for isolation of smallpox; the cottage near Clun has been given up.

Disinfection.—Disinfectants and sulphur candles are provided. It is recommended that the Inspector be provided with a spraying apparatus.

House Accommodation.—Adequate in amount. Many are old, worn-out, and too small for the families in them; being also badly lighted and ventilated, and damp and dilapidated. Dr. Gepp urges that with the appointment of a new Inspector the house inspection should be systematic, properly recorded, and the defects presented to the Council at each meeting for their orders, and subsequent action taken where necessary. At least 500 houses should be inspected each year.

Sewerage and Drainage.—With reference to the town of Clun “The principal sewers discharge direct into the river.” A flushing tank has been provided, the chief sewer ventilated by a shaft, and the outfall pipes lengthened so as to prevent deposit on the banks of the river. Recommendations are made for the improvement of house drains in the town of Clun and the drainage of many of the small farms of the district.

Excrement Disposal by privies with underground vaults, except for a few of the houses in Clun and a few scattered residences. Systematic attention to these privies is required and their conversion to earth-closets should be encouraged. Closets discharging into the streams at Hurst Mill and at Clungunford should be dealt with.

Removal of House Refuse.—By householders. A public tip is provided at Clun.

Water Supply.—Clun and Newcastle have excellent public supplies. Lydbury North, Acton, Lydbury Down, and Linley have supplies laid on. Pumps have been provided by the Council at Chapel Lawn and Cefn Enion. Dr. Gepp has recommended from time to time schemes of water supply for Clunbury, Clunton and Clungunford, and has pointed out that upland supplies might be provided at a reasonable cost. These questions have been referred to the parishes, with the result that no action has been taken. At Clungunford “the spout” supply has been improved, and preliminary action has been taken by the principal property owner for laying on water to his property. At Lydham a new well has been sunk and a public pump provided by the owner.

Dairies and Cowsheds. Four registered cowkeepers or milksellers in the Clun division, inspected quarterly; none in the Bishop’s Castle division.

DAWLEY (Urban).

<i>Medical Officer of Health</i> ..		..	M. GEPP, L.R.C.P.E., D.P.H.	
<i>Area in Acres</i> ..	..	..	..	2,790
<i>Population</i>	<i>at 1901 Census</i>	..	..	7,522
<i>Number of inhabited houses</i>	..	..	..	1,633
<i>Number of persons per house</i>	..	..	..	4.6

Physical Features and General Character of the District.

“As regards its general character, it may be described as a Coal and Iron Mining and “Iron-working district largely worked out. Coal Mines long out of work and dismantled Iron “works are common features. At the present time it is chiefly the place of residence of an “industrial community, many of whose members work in one or two large modern Engineering “or Pottery Works within the District, while large numbers work in Mines, Iron-works, and “Brick and Tile Works outside the District.

“The population fell off by upwards of 2,000 persons between 1881 and 1891, but increased “again by upwards of 500 during the ten years 1891—1901.

“For an Urban community it is very scattered in character. There is a compact business “centre with some continuous lengths of houses radiating for some distance from it along the “main roads. The rest of the District is practically rural in character, with houses isolated or “in groups of more or less number.”

“The District is naturally very healthy being high, dry, and wind swept, and surface “drainage being good.”

Statistics.

The natural increase of the population during the year was 173. The population at the middle of 1905 is estimated at 7,650, and corrected for public institutions, 7,680.

Period.	All Causes.	Death-rates per 1000 population from									Birth-rate.
		Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Disease.	Cancer.	Infant Death-rate per 1000 Births.	
1905	13·9	·26	·13	·65	·13	1·2	2·1	·78	·78	75	34·9
Averages for years 1897-1904	15·9	..	..	..	..	..	..	..	..	105	32·1

The general death-rate and infantile death-rate are the lowest in the series of nine years, and the zymotic death-rate is extremely low.

The zymotic death-rate was due to 2 deaths from measles.

Infantile Mortality.—Amongst the infant deaths one from enteritis, 6 from atrophy and debility, and 2 from convulsions might perhaps be due to errors of feeding. As bearing upon the question of a low infantile mortality amongst the artisan population it would be instructive to find out if breast feeding is more the rule in this district than in the County as a whole.

Infectious Disease.—Three cases of scarlet fever, 8 of diphtheria, 2 of enteric fever, and 5 of erysipelas were notified. The outbreaks of diphtheria appeared to be quite unconnected and the origin of the cases of enteric fever was obscure.

Dawley National Infant School was closed for a fortnight on account of measles.

Hospital Isolation.—There is a joint hospital with Shifnal for small pox. There is no hospital for other infectious diseases.

Disinfection.—The Inspector sprays infected premises with formalin. Disinfectants are supplied by the Council.

House Accommodation.—The majority of the houses are small and old, and often dilapidated and damp, but there has been a good deal of improvement in recent years. About 20 houses have been considerably improved during the year.

In the present state of housing accommodation some overcrowding by large families can hardly be prevented, but the taking in of lodgers under such circumstances should not be allowed.

Although much good work is being done with regard to improving the surroundings of houses, there is great scope for future work.

Supervision of New Buildings.—Bye-laws are now in force similar to the Model Code for Rural Districts.

Sewerage and Drainage is more or less fragmentary, following the lines of road water drains and culverts and finally discharging along open channels to watercourses running into the Severn. Several new lengths of sewers have been laid during the year, and amongst them a sewer of 250 yards by the Horsehay Company. Sewage from 15 new houses will be dealt with by a septic tank and irrigation on land.

The sewerage of Little Dawley has been reported on and Dr. Gepp recommends that a piped sewer be laid. The difficulty of getting a site for disposal of the sewage has hitherto delayed the work.

Excrement Disposal.—Mostly by privies with underground vaults. “The system is radically bad.”

Scavenging.—The Council now undertake the scavenging of privies and the removal of house refuse at the request and cost of the householder.

Water Supply.—The Council is engaged in negotiating with public bodies for a supply.

Bye-laws as to Nuisances, Slaughter-houses, New Buildings, and Pleasure Grounds have been sanctioned. The Cowsheds, Dairies, etc., Regulations are now in force.

There are 8 slaughter-houses and 23 cowkeepers and milksellers on the registers.

DRAYTON (Rural).

<i>Medical Officer of Health</i>	..	..	..	A. MACQUEEN, M.D.	
<i>Area in Acres</i>	..	..	..	..	51,384
<i>Population</i>	<i>at 1901 Census</i>	..	..	..	11,708
<i>Number of inhabited houses</i>	„	..	..	..	2,655
<i>Number of persons per house</i>	„	..	..	..	4·4

Physical Features and General Characteristics.

“The Rural Sanitary District of Drayton comprises an area of upwards of 51,000 acres, situated in the great central plain of England. The general elevation of the District is about 300 feet. The District extends from the parishes of Adderley and Norton-in-Hales on the North, to the parish of Woore on the North-East, where the three counties, Cheshire, Staffordshire, and Shropshire join; to the South, as far as and including the parishes of Hinstock and Child’s Ercall, and the villages of Eaton and Little Bolas in Stoke parish. On the East it is bounded by the River Tern and the parish of Cheswardine. On the West it extends to and includes the village of Stoke-upon-Tern, the parish and village of Hodnet, and the hamlet of Marchamley. Near the centre of the district is the town of Market Drayton with the township of Little Drayton adjoining, and the parish of Moreton Say. The formation throughout is the new red sandstone, which attains its greatest elevation in England in the district. The river Tern in its winding course to the Severn drains the greater portion of the district. The land in general contour is level, well watered, highly cultivated, and there are some finely timbered estates. The population is chiefly employed in agricultural pursuits and stock-raising.”

Statistics.

The natural increase of the population during the year was 140. The population at the middle of 1905 is estimated at

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1905	14·5	·60	·34	·77	·60	1·2	·86	2·3	·34	88	26·3
Averages for years 1895-1904	15·8	..	..	..	..	..	..	..	..	130	25·7

The zymotic death-rate was due to one death from measles, 1 from scarlet fever, 1 from whooping cough, 3 from diphtheria, and 1 from diarrhœa.

Infantile Mortality.—This has steadily decreased since 1902.

Classification of Deaths.—Seventy-two were of persons of 65 years and upwards, and 44 under 5 years, these accounting for more than two-thirds of the deaths. Accidents accounted for 10 deaths, 4 from suffocation, and 2 from burns.

Infectious Diseases.—Twenty-eight cases of scarlet fever, 19 of erysipelas, 9 of diphtheria and membranous croup, and 1 of enteric fever were notified. The scarlet fever cases were scattered throughout the district. Five of the cases of diphtheria occurred in one house. Two schools were closed on account of measles.

Six cases of scarlet fever and four of diphtheria were admitted to the hospital.

Hospital Accommodation.—There is a hospital for infectious diseases other than smallpox, at Little Drayton, for the use of Drayton and Blox Heath Rural District; and a joint hospital at Prees Heath for smallpox cases.

House Accommodation.—On the whole ample. Many houses of an improved standard have been erected about Market Drayton, and several dilapidated houses are having the attention of the Council. Building bye-laws are now in force.

Lodging-houses, Bake-houses, and Slaughter-houses are regularly inspected.

Dairies and Cowsheds are registered, and their inspection is under consideration.

Sewerage and Drainage.—The Little Drayton outfall system is still working satisfactorily. “The treatment of the sewage of Market Drayton should have the early consideration of the Council.”

Excrement Disposal.—Partly by water-closets and partly by privies. The water-carriage system should become general in Market Drayton and Little Drayton.

Removal and Disposal of House Refuse.—By occupier. A public system is under consideration.

Water Supply.—The Market Drayton supply is being extended to Betton, and it is hoped that arrangements will be made to supply Norton-in-Hales.

ELLESMERE (Urban).

Medical Officer of Health .. E. T. WHITAKER, M.B., B.SC., D.P.H.

<i>Area in Acres</i>	.. .. .	1,204
<i>Population</i>	<i>at 1901 Census</i>	1,945
<i>Number of inhabited houses</i>	„	425
<i>Number of persons per house</i>	„	4.5

Statistics.

The natural increase of the population during the year was 8. The population at the middle of 1905 is estimated at 1980.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1905	12.6	.0	.50	.0	.50	.0	2.0	2.0	1.0	85	23.7
Averages for years	..	..	..	..	..	..	..	..	..	..	..

More than a quarter of the deaths were of persons over 70 years of age.

Infectious Disease.—One case of small-pox, one of erysipelas, and two of scarlet fever were notified. The case of small pox—a tramp at the workhouse—was successfully isolated.

Isolation and Disinfection.—These matters are as they were.

House Accommodation.—Good.

Drainage and Scavenage.—The town is well-sewered but another method of disposal of the sewage may be necessary owing to a technical break of the Rivers' Pollution Prevention Act. The scavenging might be improved on the lines previously suggested.

Water Supply is from the Liverpool mains.

Workshops.—A register is kept and the places are regularly visited.

Slaughter-houses, Bake-houses, and Dairies also receive attention.

ELLESMERE (Rural).

Medical Officer of Health . . . E. T. WHITAKER, M.B., B.S.C., D.P.H.

<i>Area in Acres</i>	51,117
<i>Population</i> <i>at 1901 Census</i>	7,911
<i>Number of inhabited houses</i>	1,658
<i>Number of persons per house</i>	4·7

General Characters of the District.

“ The District is strictly agricultural and the houses are for the most part more or less widely distributed.
 “ There are a few small villages and hamlets of which Baschurch is the largest. Parts of the district are very
 “ flat, but most of it is undulating and cultivated. The sub-soil is gravel with some clay and drift.”

Statistics.

The natural increase of the population during the year was 82. The population at the middle of 1905 is estimated at 7,900.

Period.	Death-rates per 1,000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1905	14·5	·50	·38	1·1	·50	·63	1·2	2·5	·63	123	23·5
Averages for years	..	..	..	..	..	..	..	..	..	..	..

Of the 25 deaths of infants, no fewer than 7 were due to premature birth.

Infectious Disease.—Thirteen cases of scarlet fever, 9 of diphtheria, and 1 of erysipelas were notified. The Harmer Hill School was closed on account of scarlet fever in December. An outbreak of diphtheria was started by a servant who came from Wrexham with a sore throat. Six cases arose from this one, 4 amongst children attending Cockshutt School.

Housing Accommodation.—Fairly satisfactory. The defects found are usually promptly remedied.

There is very little overcrowding.

Drainage and Scavenage.—The majority of houses have sufficient ground to dispose of slops and privy contents, and if intelligently done this is far better than the use of buried drains and cesspools.

Water Supply is mostly by wells except for a public supply at Cockshutt. Investigation into the water supply of one or two villages is recommended.

Workplaces, etc.—56 places on the register. They have been inspected and matters requiring attention dealt with.

Cowsheds and Dairies have also been inspected and received attention.

LUDLOW (Urban).

Medical Officer of Health C. B. CRANSTOUN, M.B.

<i>Area in Acres</i>	.. .. .	418
<i>Population</i>	<i>after extension</i>	6,373
<i>Number of inhabited houses</i>	„	1,372
<i>Number of persons per house</i>	„	4·6

Character of the District.

“ Ludlow is a small agricultural town on the southern border of Shropshire, about 360 feet above sea level. It is situated on a large spur of limestone rock, which rises at the lower end of the Corve Valley. On the north, west and south sides, it is separated from the surrounding hills by the rivers Corve and Teme. On the east side the ground gradually rises till it becomes continuous with the Clee Hill range.”

Statistics.

The natural increase of the population during the year was 61. The population at the middle of 1905 is estimated at 6,570.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1905	15·2	·15	·0	1·2	·30	2·4	·61	2·6	1·2	110	24·9
Averages for years 1895-1904	17·4	..	..	..	..	..	..	..	..	120	27·4

The zymotic death-rate was due to one death from typhoid fever and one from diarrhœa.

Infectious Disease.—One case of smallpox, 2 of erysipelas, 8 of scarlet fever, 3 of enteric fever, and 1 of puerperal fever were notified. The case of smallpox was removed to the Small-pox Isolation Hospital. Its origin was not traced.

The statistics of infantile vaccination are satisfactory.

Isolation Hospital.—A hospital for the ordinary infectious diseases is recommended, and 2 beds per 1,000 inhabitants is suggested as regards size.

Water Supply.—There has been slight discolouration after rain owing to flooding of the catchment area. A scheme has been submitted which will efficiently supply the higher parts of the town and increase the pressure in all parts. Further provision is also made for increased demands.

Sewage System.—The new sewage scheme is now complete. Advice is given with regard to the laying and ventilation of house drains. Water testing of all drains is recommended.

Housing of the Working Classes Act, 1890.—During the year the Medical Officer of Health has advocated action where necessary.

Disposal of Refuse.—Satisfactory arrangements have been made.

Common Lodging Houses.—Generally speaking they are well kept.

Dairies, Cowsheds, and Milkshops have been properly inspected during the year. They are still capable of improvement.

LUDLOW (Rural).

<i>Medical Officer of Health</i>	G. H. SHACKEL, L.R.C.P.
<i>Area in Acres</i>	66,350
<i>Population</i>	at 1901 Census (after extension of Borough) 9,585
<i>Number of inhabited houses</i>	2,003
<i>Number of persons per house</i>	4.7

Statistics.

The natural increase of the population during the year was 125. The population at the middle of 1905 is estimated at 9,535.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1905	13.5	.63	.10	.42	.10	.63	.73	.94	.94	76.9	25.9
Averages for years 1902-1904	12.5	..	..	..	..	..	..	..	..	83.4	25.8

The death-rate from zymotic disease was due to 2 deaths from scarlet fever, 3 from diphtheria, and 1 from diarrhœa.

Infectious Disease.—Sixteen cases of diphtheria, 2 of erysipelas, 46 of scarlet fever, 3 of enteric fever, and 4 of puerperal fever were notified. Nine of the cases of diphtheria were in the Culmington district, and were probably due to an overlooked case. The cases of scarlet fever were in Culmington, Tugford Parish, Onibury Parish, and Stoke St. Milboro'. The outbreaks were attributed to a great extent to mild unrecognised cases. In making an investigation in the Onibury Parish, Dr. Shackel discovered seven unrecognised cases. The cases of typhoid fever were attributed to sanitary defects which are being remedied. Schools were closed on seven occasions for infectious disease.

Water Supply.—*Craven Arms.* A special report was made on this subject. Arrangements have been made with the Railway Company to augment the existing supply—supply now ample. *Clee Hill.*—Property near “The Oak” is now supplied with good water forced up by a ram from Berrington Spout and laid on to standpipes. The Dhu Stone Company have supplied all their cottages from the “silver well.” Water has been laid on to “Seifton Bach”. In the “Hope” Bromfield Parish an additional supply has been provided.

Excrement Disposal.—At Craven Arms the conversion of privies to water closets is much needed. The Railway Company have promised to carry out this work.

Cowsheds and Dairies.—21 on register—visited and found fairly satisfactory.

Slaughter-houses.—10 registered—kept in better condition.

Factories and Workshops.—20 on register—visited and found on the whole satisfactory.

NEWPORT (Urban).

Medical Officer of Health M. GEPP, L.R.C.P.E., D.P.H.

<i>Area in Acres</i>	..	..	..	..	..	..	768
<i>Population</i>		<i>at 1901 Census</i>	..	..	..	..	3,241
<i>Number of inhabited houses</i>		..	..	..	..	..	720
<i>Number of persons per house</i>		..	..	..	..	..	4.5

Physical Features and General Character of the District.

"The District comprises 759 acres, lying on the Eastern border of the County, very level "in contour, the general elevation being some 250 feet. The natural drainage is to the West, "but there is no stream of any importance. The sub-soil is the Bunter beds of the New Red "Sandstone. The District includes the town of Newport, consisting chiefly of one long and "wide street, about a mile in length, running North and South, with several narrow lanes "and passages and courts running at right angles from it. This part of the Town is compact "and old, and there is about the centre some crowding of houses upon area. To East and "West is open country with extensions of more modern building along the roads converging "on the town, and some outlying collections of houses. Newport is a market and residential "town."

Statistics.

The natural increase of the population during the year was 27. The population at the middle of 1905 is estimated at 3,199 and corrected for public institutions, 3130.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1905	16.6	.64	.0	.96	.0	3.2	1.6	1.6	1.6	72	26.5
Averages for years 1898-1904	16.1	..	..	..	..	..	..	..	..	105	25.1

Forty-six per cent of the deaths were of persons of sixty-five years of age or more.

The zymotic death-rate was due to one death from measles and one from diarrhœa.

Infectious Disease.—Four cases of scarlet fever, one of enteric fever, and one of erysipelas, were notified. The scarlet fever cases were apparently isolated outbreaks. There were some sanitary defects in connection with the case of enteric fever.

Measles was prevalent in November, and the National School was closed.

Hospital Isolation.—There is a small hospital consisting of a caretaker's cottage and 2 wards, with capacity for two persons of each sex suffering from the same disease. There is an arrangement for securing a tent in the event of smallpox breaking out.

Disinfection.—Sulphur candles for fumigation and other disinfectants for cleaning are supplied. The Inspector supervises the disinfection in some cases.

House Accommodation is in general adequate in amount and fitness for habitation, but there are a good many small worn-out houses that do not reach a satisfactory standard of fitness for habitation. Many of the worst of these are void, but remain on the ground. There is no evidence of serious overcrowding. There is much work to be done in improving drainage, yard paving, and privy and ashpit accommodation. Not much progress has been made with the house-to-house inspection, but the Council has now provided assistance for the Inspector.

Sewerage and Drainage.—The town is well sewered. Drainage regulations have been adopted and all new drains and re-laid drains are subjected to the water test. During the year 21 houses were re-drained and connected to the sewers.

Excrement Disposal.—By privies with underground vaults in about three-fourths of the houses. There is plenty of room for action in the conversion of privies to water closets.

Scavenging of privies and house refuse is undertaken by the Council, who have a site for sorting and disposal of refuse.

Water Supply.—The district has an excellent public supply from three wells sunk and bored in the New Red Sandstone at the south end of the District. Most of the houses are connected to the mains but there are 22 public hydrants supplying 230 houses. The town water was laid on to 9 houses during the year.

There are eight slaughter-houses, four common lodging-houses, and nineteen cow-keepers or milk-sellers on the registers. The places are frequently inspected by the Sanitary Inspector and kept satisfactorily under the Bye-laws and Regulations.

NEWPORT (Rural)

<i>Medical Officer of Health</i>	M. GEPP, L.R.C.P.E., D.P.H.
<i>Area in Acres</i>	22,807
<i>Population</i> <i>at 1901 Census</i>	6,033
<i>Number of inhabited houses</i>	1,284
<i>Number of persons per house</i>	4.7

Physical Features and General Character of the District.

"The District comprises 22,945 acres, lying upon the Eastern border of the County. "The Northern and larger part is on the Shropshire plain, varying in elevation from 150 to "300 feet, O.D., and lying on the Bunter Beds of the New Red Sandstone. This part is "entirely agricultural and contains the villages of Edgmond and Tibberton with some smaller "ones. The Southern and much smaller part rises rather rapidly, reaching some 500 feet "elevation at the extreme border on the South and comprises the apex of the extensive "triangular Coalfield which has its base some miles to the South. This part lies upon the "Coal measures, with a small intrusive outcrop of much broken and older strata forming "Lilleshall Hill, on and around which is the village of Lilleshall. The natural drainage is "by various small streams from the South and East flowing towards the West, and falling "into the Tern River outside the District. There are several Collieries and some Engineering "and other ironworks in the Southern part, and the population there is relatively denser, "but much scattered in groups of dwellings, and for the most part industrial."

Statistics.

The natural increase of the population during the year was 95. The population at the middle of 1905 is estimated at 6,036, and corrected for public institutions, 6060.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1905	13.2	.66	.50	.50	.16	1.3	.66	1.5	.99	116	27.0
Averages for years 1897-1904	15.7	..	..	..	..	..	..	..	..	125	27.1

The zymotic rate was due to 1 death from measles, 2 from whooping cough, and 1 from diphtheria.

Infant Mortality.—Six of the nineteen deaths were probably due to errors of feeding, and two to suffocation by overlying.

Infectious Disease.—Twenty-four cases of scarlet fever, 6 of diphtheria, 3 of erysipelas, were notified. Seventeen of the cases of scarlet fever were in Donnington Wood. The spread is attributed to mild overlooked cases and to the fact that there is a large number of susceptible children in the district. There was little evidence implicating schools. Handbills were distributed throughout the District. Five cases occurred in December at Flashbrook, and Chetwynd School was closed as a precaution.

Hospital Isolation.—There is no hospital. The arrangements in case of smallpox are as in previous years.

Disinfection.—A spraying apparatus has been provided and the disinfection is carried out by the Inspector.

Four schools were closed on account of infectious disease.

House Accommodation.—Fair in the agricultural area. In the Donnington Wood industrial area steady progress is being made. In connection with the main groups of buildings, new wash-houses have been provided away from the house, thus removing a source of dampness and adding to the house accommodation. Speaking of the "barracks" Dr. Gepp says—"They need to be thoroughly well spouted and troughed, with means of storing or carrying off the rain water, the roofs ceiled and through ventilation provided, preferably by skylights, as the walls are low and the roofs high pitched. Dampness of the walls should be dealt with wherever necessary." Radical improvement will result in increased comfort and health and in a lowered death-rate, especially among children.

Overcrowding.—Eighteen cases of overcrowding were brought to light as a result of a house-to-house inspection in Donnington Wood. These were reported to the Lilleshall Company, with the result that 8 have been dealt with and the remainder will be attended to as soon as accommodation can be found. The new Inspector is working on the basis of a house-to-house inspection.

Sewerage and Drainage.—Attention has been given to the offensive sewer or water course above Donnington Barracks, mentioned in last year's report. As a result about 2,250 yards of new sewers have been laid by the Lilleshall Company and the principal landowner. In Edgmond village the houses are drained to three or four sewers or road drains which empty on the land. There is no provision for flushing or ventilation.

Excrement Disposal—principally by privies with underground vaults.

Disposal of House Refuse—by occupiers, who mostly have ample garden space.

Water Supply.—Church Aston and Chetwynd Aston are supplied from the Newport Urban mains. At Tibberton water is laid on to stand pipes. At Edgmond water is laid on from a well in the sandstone to several of the houses and to a public fountain. Lilleshall Village, Muxton and Donnington are shortly to be supplied from a well close to L. & N.W. Railway, the water being pumped to a reservoir on Lilleshall Hill; and Donnington Wood is to be supplied along with Oakengates from a well at Hilton Bank. This work is being carried out by the Duke of Sutherland.

An analysis of the water from a well at Whitley Fold showed dangerous pollution.

For new houses the Council is advised not to issue a certificate unless the situation of the well is good and its walls made watertight to a depth of 8 feet at least.

OAKENGATES (Urban).

Medical Officer of Health .. E. T. WHITAKER, M.B., B.SC., D.P.H.

<i>Area in Acres</i>	..	..	..	..	..	..	..	..	2,327
<i>Population</i>	<i>at 1901 Census</i>				..	..	..	..	10,906
<i>Number of inhabited houses</i>	„	..	..	..	..	..	..	..	2,187
<i>Number of persons per house</i>	„	..	..	..	..	..	..	..	5.0

“ The District, as now constituted, covers an area of some 2,327 acres, and includes some thickly populated parts, with open country containing scattered dwellings around.

“ The ground surface varies considerably, the portion of the North and West being part of the Shropshire
 “ plain overlying the Bunter Beds and covered with drift, the elevation sloping from 200, O.D., in the North
 “ to nearly 400 towards the South-East, where the Coal Measures rise up, and gradients rapidly rise to nearly
 “ 600 O.D.

“ It is the centre of an important coal and iron industry.

“ The District thus includes a large number of mines, both exhausted and actively working, coal and iron stone being raised, and a number of ironworks and engineering shops. There are a few good houses which are increasing in number, and a majority of cottages irregularly distributed and of low rateable value.

“ A very satisfactory drainage scheme has done much to improve the condition of the poorer classes, and
“ a water supply is in course of construction to replace old shallow and polluted wells and water from pits.”

Statistics.—The natural increase of the population during the year was 182. The population at the middle of 1905 is estimated at 11,019.

[illegible]

The death-rate was the lowest since the district was constituted.

There was a decrease on the previous year in the deaths from the zymotic diseases and tubercular diseases. There was only one death from tubercular diseases under one year of age.

The notification of phthisis is advocated.

Of the deaths under one year of age ten were due to convulsions, and eight to atrophy, debility, and marasmus; causes of death frequently due to improper feeding.

Dr. Whitaker points out that infantile mortality of the country has not fallen along with the general mortality and that this is due to defects in infant feeding, and suggests as a remedy the teaching of hygiene to older girls in schools, and the employment of a parish nurse or health visitor.

Infectious Diseases.—Scarlet Fever.—One hundred and twenty five were notified with only three deaths. The cases were mild and scattered over the whole district, the prevalence increasing steadily to the end of the year. Five of the cases were subsequently notified as suffering from diphtheria. Evidence of spread through schools was not sufficient to call for closure in any instance. The mildness of the cases causing them to be overlooked, and the great difficulty in isolating the cases was responsible for the spread. *Diphtheria.*—There were 30 cases with 6 deaths, mostly in separate houses. They occurred principally in old houses, often associated with sanitary defects, and had no relation to school attendance. Facilities for bacteriological examination were not sufficiently utilised. The two cases of typhoid fever were infected outside the district.

Housing Accommodation.—There are a number of houses unfit for habitation that cannot be dealt with for lack of better ones. Nine cases of overcrowding were dealt with. Much good work has been done in inspecting houses. Fifty-eight of the worst have been rendered habitable.

Drainage and Scavenage.—Over 500 houses have been connected with the new drainage scheme. Scavenging has been improved. The privies and ashpits are emptied on request. The large size and unsuitable positions of many of the privy pits is referred to.

Water Supply.—A new scheme adopted.

Workshops.—60 on register; 115 visits have been paid and six defects remedied. There are 11 bakehouses, mostly satisfactory. Certain of the slaughter-houses are not suitable and too near dwellings. They have been inspected and improved to some extent. Cowsheds and dairies have been inspected and improvements made in 12 instances. On the whole they are fairly satisfactory.

The sanitary condition of the district shows considerable improvement.

OSWESTRY (Urban).

Medical Officer of Health .. R. DE LA P. BERESFORD, B.A., M.D.

<i>Area in Acres</i> ..	..	..	..	..	..	1,887
<i>Population</i>	<i>at 1901 Census</i>					9,579
<i>Number of inhabited houses</i>	..	..	..	..	..	2,083
<i>Number of persons per house</i>	..	..	..	..	..	4·6

Statistics.

The natural increase of the population during the year was 131. The population at the middle of 1905 is estimated at 9,950.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases.	Cancer.		
1905	15·7	·70	·50	1·0	·60	1·0	1·0	2·4	·70	95	27·4
Averages for years 1895-1904	17·3	..	..	..	..	..	..	..	..	123	27·2

Fifty-nine of the deaths were of persons of 65 years and upwards, and of these 29 died between the ages of 70 and 80, and 9 between 80 and 88.

The zymotic rate was due to 5 deaths from measles, 1 from whooping cough, and 1 from diarrhoea.

Infectious Disease.—Four cases of diphtheria, and 23 of scarlet fever were notified. The scarlet fever was of a very mild type. There was a widespread epidemic of measles during the last quarter of the year necessitating closure of all the schools. Notification of measles is not in force and Dr. Beresford does not think it would be of much use.

Scavenging.—There is daily removal of house refuse.

Sewage Disposal.—Ample ground in a good position has been purchased.

The Lodging-houses are well kept and the factories and workshops are in good condition.

The Water Supply was abundant all last year.

The Council Schools have been much improved and brought up to date. Dr. Beresford is of opinion that children are sent to school at too early an age, nor does he approve altogether of municipal nurseries.

The erection of a small meteorological observatory is suggested.

OSWESTRY (Rural).

Medical Officer of Health .. R. DE LA P. BERESFORD, B.A., M.D.

Area in Acres 60,366

Population at 1901 Census 14,727

Number of inhabited houses 3,220

Number of persons per house 4·6

Statistics.

The natural increase of the population during the year was 157. The population at the middle of 1905 is estimated at 14,900.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1905	16·8	·20	·40	1·2	·40	1·1	1·0	2·5	1·1	121	28·1
Averages for years 1895-1904	15·3	..	..	..	..	..	..	..	..	102	27·2

The zymotic rate was due to 1 death from whooping cough, 1 from diphtheria, and 1 from diarrhoea.

Infectious Diseases.—Two cases of diphtheria, 9 of erysipelas, 33 of scarlet fever, and 4 of enteric fever were notified. The outbreak of scarlet fever in the Morda District was probably due to a woman who returned from nursing scarlet fever cases to her own family in Morda, and the spread was due to the mildness of the cases. Two cases of enteric fever in Gobowen District were probably due to drinking water from the polluted stream. Efforts are being made to provide this district with a good water supply and they are likely to be successful. One fatal case of diphtheria came from an infected house in Plymouth, but did not cause any spread.

Housing Accommodation.—There are many dilapidated and overcrowded houses which cannot be condemned owing to scarcity of suitable houses. Ten houses have been condemned and nine of them have been practically rebuilt, and one is still closed.

Water Supply.—The Pant water scheme has been completed and will afford an abundant and pure supply. It consists of a reservoir of 90,000 gallons capacity and about 3 miles of pipe. About 30 houses are connected and many fountains are placed in convenient situations.

The Weston Rhyn waterworks are working well and there has been no shortness although nearly a hundred new connections have been made during the last few years. Increased storage and an additional supply is recommended.

Trefonen, Sweeney Mountain, and St. Martin's water works are all working well and have proved to be a great boon to the district.

Drainage and Scavenging.—"The drainage and public scavenging of the larger villages will next require your attention." Weston Rhyn should first be dealt with and its system of drainage remodelled and the outfall improved.

Factories and Workshops and Canal Boats.—Their condition is improving each year.

Schools.—The proper ventilation of cloakrooms and the provision of slippers for the children are mentioned as matters of importance.

SHIFNAL (Rural).

Medical Officer of Health E. T. WHITAKER, M.B., B.SC., D.P.H.

<i>Area in acres</i>	45,380
<i>Population at 1901 Census</i>	8,844
<i>Number of inhabited houses</i>	1,918
<i>Number of persons per house</i>	4·6

General Characters.

“ Your rural district has an area of 45,380 acres. Two of the parishes are administered by you though in the geographical county of Stafford, as is also a portion of a third. The population is small and for the most part scattered thinly, with an average density of only one person per five acres of land. The district comprises sixteen parishes, all of them, excluding a portion of Shifnal and Albrighton, being strictly rural. The district is agricultural, with some parks, and overlying a succession of New Red Sandstone series, coal measures cropping up at the extreme western boundary.

“ The small town of Shifnal has, for various purposes, been made a contributory area, and is the market town for the surrounding agricultural area. Owing to the recent provision of a modern sewage system and an abundant supply of pure water, it now presents many attractions as a residential locality.

“ The Infectious Diseases (Prevention) Acts and part of the 1890 Amendment Act are in force, and Model Regulations for Cowsheds and Dairies, together with By-laws relating to new buildings and also to nuisances have been adopted.

“ The only public institutions are the workhouse, a good cottage hospital, and a new isolation hospital for small pox.”

Statistics.

The natural increase of the population during the year was 77. The population at the middle of 1905 is estimated at 8,808.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1905	14·7	·68	·0	·57	·57	1·5	·34	2·7	1·1	47	23·7
Averages for years	..	..	..	..	..	..	..	..	..	..	..

The zymotic death-rate was due to 3 deaths from whooping cough, 2 from diphtheria, and 1 from diarrhœa.

Infectious Disease.—Seven cases of diphtheria, seven of scarlet fever, and four of erysipelas, and one of typhoid fever were notified. Two cases of scarlet fever formed single outbreaks apparently without any connection.

Housing Accommodation.—The district as a whole is fairly well supplied with houses in good structural condition, and what defects there are can mostly be dealt with under the nuisances clauses of the Public Health Act.

Building bye-laws are in force.

Drainage and Scavenage.—The value of education in teaching country children how sewage should be disposed of is pointed out. The sewage system of Shifnal is working well and the effluent is satisfactory. Albrighton sewerage has received attention.

Scavenage at Shifnal is performed by contract.

Water Supply.—The Shifnal supply is being extended. Albrighton is supplied from the Wolverhampton main and Kemberton from the Shifnal main.

Workshops, etc.—A register is kept and the various places are inspected.

Slaughter-houses, Dairies and Cow-sheds have all been inspected regularly.

SHREWSBURY (Urban).

<i>Medical Officer of Health</i>				M. GEPP, L.R.C.P.E., D.P.H.		
<i>Area in Acres</i> .. ..	..	..	..	..	..	3,525
<i>Population</i>	<i>at 1901 Census</i>			..	..	28,395
<i>Number of inhabited houses</i>	"			..	..	6,065
<i>Number of persons per house</i>	"			..	..	4.68

Physical Features of the District.

"The Borough comprises 3,525 acres, forming an area nearly equal in length and breadth, and roughly quadrangular. This area lies in the Valley of the Severn, which is here wide and open, having a gradual fall to the river, and varying in elevation from 150 to 260 feet above sea level. The geological formation is varied, the Permian Red Sandstone occurring in a band across the centre, with the Bunter beds of the New Red Sandstone to the North, and the Coal measures on the South. The actual sub-soil is however mainly river drift of varying and generally considerable thickness, in places stiff clay, but generally sandy and dry in the upper part, with clay underlying at greater or less depth. The contour offers good natural drainage to the Severn, which owing to its devious course flows over a length of some eight miles, either through, or along the borders of, the District. The actual length of its flow through the District is about three miles."

"The climate of Shrewsbury is mild and healthy. Though not bracing and having the characteristics of a valley climate, yet the open nature of the valley and the varied contours of the town, together with the course and movement of the Severn through and around the town, prevent stagnation of the air, and the prevailing South-West wind has free course, keeping the air clear and fresh, and river fogs are neither common nor dense. The rainfall is moderate, the town lying within the rain shadow of the hills of Wales and the Border Country. The rainfall for Shrewsbury in 1905, was 18.54 inches, as given in the 'Tables of Meteorological Data,' published in the Quarterly Returns of the Registrar General."

"The old town of Shrewsbury stands on two hills, of generally moderate ascent, but steep in parts, and nearly surrounded by the river, which here forms a horseshoe curve some two miles round with a width across the neck of some 400 yards. This enclosed part is for the most part densely built upon. Of the various suburbs across the river, Frankwell forms an old settlement on the North-West, with modern extensions, chiefly of villa residences, along the main roads radiating from it. Kingsland is a modern residential suburb to the South-West, Coleham an old settlement to the South-East, with Belle Vue, a modern extension, adjoining; and Abbey Foregate, old near the river, and modern and residential further out, lies to the East. To the North-East, on the low-lying ground outside the neck of the peninsula, is the considerable district of Castle Fields, built over for the most part some forty to fifty years ago, and forming an artisan residential quarter."

"Shrewsbury is a market and residential town, and an important railway centre for trade of a large agricultural district, a large number of main roads converging on the town."

Statistics.

The natural increase of the population during the year was 259. The population at the middle of 1905 is estimated at 29,111, and corrected for public institutions is estimated at 29,371.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases.	Cancer.		
1905	15·3	·58	·48	1·1	·07	1·5	1·4	2·1	1·3	108	23·8
Averages for years 1895-1904	17·6	..	..	..	..	..	..	..	..	140	26·2

The general death-rate is the lowest recorded except that for 1903.

The death-rate for the 5 years 1901-1905, was 15·7, and for the previous 5 years 18·6. This improvement is partly attributed to improved sanitation, especially better drainage, sewerage and sewage disposal and consequent cleansing of the river.

The zymotic death-rate was due to 1 death from diphtheria, 1 from whooping cough, 1 from typhoid fever, and 14 from diarrhœa.

Infantile Mortality.—Of the 76 deaths 21 were due to diarrhœal diseases, 11 to atrophy, debility and wasting, 8 to convulsions. These are mostly associated with imperfect methods of feeding and rearing of infants. The good that can be done by educating the children in the elementary schools and by the formation of a Ladies' Health Society for teaching mothers in their homes is pointed out.

Infectious Disease.—Thirty-nine cases of scarlet fever, 15 of diphtheria, 8 of enteric fever, and 16 of erysipelas were notified. The scarlet fever cases were scattered and mild. The diphtheria infection was confined to one case in each house affected. One case of enteric fever was imported and the origin of the others was obscure.

Phthisis and Tuberculosis.—The figures show a marked improvement on those for 1904. Notification is advocated and the necessity for fresh legislation is pointed out.

Summer Diarrhœa.—Rate 1·09. In Shrewsbury this rate is consistently low.

Hospital Isolation.—An emergency hospital with 6 beds, and a Berthon Hut for 4 beds. There is no hospital for isolation of the more common infectious diseases. It is suggested that the hospital be removed from its present unsuitable site and additional accommodation be provided for the isolation of those cases of scarlet fever, diphtheria, and enteric fever which cannot be isolated in their own homes or are a special risk on account of being on business premises.

Disinfection.—There is no disinfecting station. Dr. Gepp has in previous reports pointed out the advisability of having one. Rooms are disinfected by the Sanitary Inspector by spraying with formaldehyde and fumigating with formalin. Disinfectants are supplied. Disinfection after death or removal of phthisis cases is recommended.

House Accommodation is adequate in amount. There is no evidence of gross overcrowding but there is necessity for continued investigation. There is much old dilapidated and badly constructed property requiring very frequent inspection. Proceedings were commenced for the closure of six houses, but the owner has undertaken to demolish three and to efficiently repair the others.

In the older parts of the town there are streets or passages with houses built back to back or without windows behind to allow of through ventilation. Otherwise the space about the houses is generally good. Many of these courts are roughly paved with cobbles.

Supervision over erection of New Buildings.—Sixty-nine plans of new dwelling houses were submitted and approved, and 20 additions to dwelling houses.

Inspection.—The amount of new drainage work carried out is very satisfactory. An Assistant Inspector has been appointed.

Sewerage and Drainage.—Dr. Gepp advocates gradual replacement of the unsound sewers.

Ventilation of Sewers.—The surface ventilators are mostly closed. There are shaft ventilators at the dead ends in many of the modern sewers, but the older sewers are ventilated only through the house drains. Trapping of house drains and ventilation of sewers by special shafts is recommended.

Flushing of Sewers is regularly attended to.

Disposal of Sewage by precipitation tanks and irrigation at Monkmoor.

House Drainage.—Drainage regulations are in force and new drains are submitted to the water test.

Excrement Disposal.—The water carriage system is practically universal.

Removal and Disposal of House Refuse.—There is a weekly collection of house refuse. The refuse is tipped on low lying ground in the Borough. "Greater attention is now paid to the disposal of refuse, and complaint of nuisance arising is rarely received. The important point is to cover with soil or with dry ashes any refuse liable to decompose, and so prevent offensive nuisance and the breeding of flies. A recent inspection of the "tip" near Rocke Street suggests that it would be a desirable improvement to collect from day to day the various odds and ends of paper and other light refuse and burn it on the ground, or in an improvised furnace."

Water Supply.—A dual supply—river water laid on to the houses and pure spring water to public hydrants.

After submitting a river and an upland scheme to the rate-payers a bill has been promoted in Parliament for carrying into effect the Pulverbach Upland Scheme.

The Conduit water comes from nine wells at the Conduit Head, a mile and a half to the South-West of the town. The yield of the springs is about 15,000 gallons per day, or half a gallon per head of the population. A tank holding 30,000 gallons and giving a head of 60 feet above the level of the springs has been provided during the year. Pumping was necessary during 1905 from February 17th to the end of the year.

Slaughter-houses.—Twenty-three on the register, 15 being in Roushill. They are fairly well kept, the principal nuisance being from the keeping of pigs and the boiling of offal. The provision of a public slaughter-house is recommended.

Dairies, Cowsheds, and Milkshops.—121 persons are registered, 34 being cowkeepers and milksellers in the borough, 56 retailers of milk, and 31 cowkeepers outside the borough selling milk within it. They are inspected but more frequent inspection is recommended.

Common Lodging Houses.—Four registered, inspected by the police. Adoption of Model bye-laws is recommended.

Bye-laws as to Nuisances.—New bye-laws have been adopted during the year.

Sale of Food and Drugs Act.—Sixty-one samples, including 44 of milk, were taken during the year, and 5 were found to be adulterated—3 of milk and 2 of coffee.

TEME (Rural).

Medical Officer of Health JOHN H. K. GRIFFITHS, M.B.

<i>Area in Acres</i>	23,091
<i>Population</i> <i>at 1901 Census</i>	1,846
<i>Number of inhabited houses</i>	388
<i>Number of persons per house</i>	4.7

General Character of the District.

"The district is mountainous and purely agricultural. It comprises five parishes, but is "very sparsely populated; and there is only one village of any size, viz: Bucknell (population "about 400). The farms are generally comparatively small and there is little arable land, so "that no great number of labourers are employed, and the housing accommodation may be said "to be adequate and generally in an average state of repair. There is always sufficient open "space around the dwelling houses, and the surroundings are on the whole fairly clean."

Statistics.

The natural increase of the population during the year was 12. The population at the middle of 1905 is estimated at 1846.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases.	Cancer.		
1905	16.2	.0	.0	2.1	.0	1.1	1.1	2.1	3.2	75	21.6
Averages for years 1900-1904	14.3	..	..	..	..	..	..	..	..	133	24.5

Infectious Disease.—One case of scarlet fever, one of diphtheria, and one of erysipelas were notified.

Sewerage and Drainage.—No extensive systems of sewerage are required. The sewage is mostly disposed of on the land, but "in some cases sewage is carried away by the watercourses and brooks.

Excrement Disposal.—mostly by privy middens.

Removal of House Refuse.—No organised system of disposal is necessary.

Water Supply.—As a rule from shallow wells. A good supply is laid on to most of the houses in the village of Bedstone. A public supply is laid on to the houses and schools at Llanfair but this proved insufficient last summer. The water supply of the village of Bucknell has been reported on as unsuitable and insufficient, and the question of providing a supply is under the consideration of the Council. The supply in the Kinsley district remains in the same unsatisfactory condition.

There are no lodging houses, dairies, milkshops, or factories, and no offensive trades.

There is one registered cowshed, one bakehouse, and one slaughterhouse, all of which have been inspected and found satisfactory.

"The Isolation Hospital provided by the Knighton and Teme Joint Hospital Board is neither suitable nor adequate, and the provision of a proper hospital calls for the serious consideration of the Council."

WELLINGTON (Urban).

Medical Officer of Health .. E. T. WHITAKER, M.B., B.SC., D.P.H.

<i>Area in Acres</i>	<i>at 1901 Census</i>	..	..	..	..	..	381*
<i>Population</i>	..	..	..	..	..	..	6,283
<i>Number of inhabited houses</i>	..	..	..	..	..	..	1,327
<i>Number of persons per house</i>	..	..	..	..	..	..	4.7

* These figures refer to the district before its extension.

General Character of the District.

“ Wellington is the market town of a large agricultural area, having also in its vicinity important mining and manufacturing districts. Well served by various railway lines, a considerable number of outsiders come into the town, and there is a good deal of constant intercourse with other parts of the country. The area was recently enlarged, and now covers six hundred and eighty-four acres. The surface levels vary a good deal, and for the most part drainage gradients are satisfactory. The subsoil is clay and gravel drift overlying the lower layers of New Red Sandstone. The water supply is under the control of the Local Authority, which has also the water rights over a good deal of the surrounding rural area. The sewers of the town are modern, and there is an outfall beyond the borders of the town. The roads also are under the management of the Council, and a very considerable amount of improvement has been effected during recent years, which will be of benefit from a sanitary point of view as well as a convenience. There is a good public Market Hall. Slaughtering is done in private premises, though a public abattoir would be more satisfactory. The Union Workhouse is in the town, but in calculating the death-rates for the town the deaths of persons from the rural and other outside areas have been excluded. There are no other large institutions which affect the statistics. The gross value of the District as on December 31st, 1905, is £41,941 18s. 9d., and the assessable value, as on the same date, £35,604 14s. 6d., whilst outstanding loans for Sanitary purposes amount to £27,940 4s. 6d.”

Statistics.

The natural increase of the population during the year was 89. The population at the middle of 1905 is estimated at 7,500.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1905	15.7	2.0	.0	.66	.66	.93	1.1	.80	1.3	112	29.7
Averages for years 1895—1904	16.6	..	..	..	..	..	..	..	..	118	27.0

Of the infantile deaths Dr. Whitaker points out that a considerable number were from preventable causes, and he refers to his remarks in previous reports on the possibilities of useful action on the part of the Education Authority. With regard to phthisis he points out the necessity for joint action on the part of the Local Authorities, the County Council, and the public.

The zymotic death-rate was due to 10 deaths from measles, 1 from scarlet fever, 1 from whooping cough, 2 from diphtheria, and 1 from diarrhoea.

Infectious Disease.—Scarlet Fever—29 cases were notified in 16 houses. Most of the outbreaks were sporadic and their origin doubtful. The large number of second and third cases are attributed to the comparative smallness of the cottages and the absence of isolation accommodation. *Diphtheria*.—Eleven cases were notified, and with one exception they were single cases. Sufficient advantage is not taken of the arrangement for bacteriological examination. The necessity for the bacteriological examination of throats before persons recovering from the disease are allowed to go back to work or school is pointed out.

Typhoid Fever.—One case of doubtful origin was notified.

Measles.—A wide spread outbreak occurred affecting all the elementary schools. This epidemic was dealt with in a special report. Dr. Whitaker advocates a card system showing the infectious history of all the scholars.

House Accommodation.—There has been considerable further building of new houses and improvements to existing houses. Some cottages have been condemned and cases of overcrowding dealt with.

Drainage and Scavenage.—A good deal of improvement in private drainage has been effected. The privy pits, although diminishing, are still too numerous. A satisfactory scheme for disposal of the sewage has been produced.

Water Supply.—A new well has been sunk to increase the supply, and arrangements are being made to filter the Wrekin supply.

Workshops.—A proper register is kept and the places are systematically visited. One bakehouse was condemned.

The Slaughter-houses, Cow-sheds, Dairies and Lodging-houses are duly visited. The cow-sheds call for a good deal of improvement in some instances.

Extracted from Nuisance Inspectors Report—

The drainage of new houses is carried out very efficiently, and all drains are inspected before they are covered up.

Water Supply.—Exclusive of the amount of water sold for trade purposes, the amount used for domestic and municipal purposes was 34,688,000, or 12·67 gallons per head. A great saving of water has been effected, and there have been no complaints of shortage.

Plans are before the Local Government Board for improving the water supply. It is intended to construct sand filters and a clean water tank at the Wrekin Reservoir, and to put down a pumping station at the borehole recently made and pump water into the Wrekin reservoir.

Slaughter-houses.—9, visited quarterly—in a sanitary condition.

Bakehouses.—19 on register; two old ones replaced by new ones and several remodelled. They are very satisfactory.

Workshops.—72 on register; visited regularly—satisfactory.

Cowsheds.—22 in district. They are kept fairly clean, but generally they require remodelling. The Council is strongly urged to attend to this matter in the coming year.

Disinfection of rooms by spraying with formalin and fumigating with a formalin lamp.

WELLINGTON (Rural).

<i>Medical Officer of Health</i>	W. T. HAWTHORN, M.R.C.S.
<i>Area in Acres</i>	33,791
<i>Population at 1901 Census</i>	11,773
<i>Number of inhabited houses</i>	2,499
<i>Number of persons per house</i>	4·7

Statistics.

The natural increase of the population during the year was 140. The population at the middle of 1905 is estimated at 11,320.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases.	Cancer.		
1905	14·7	1·4	·0	1·0	·09	·80	1·5	1·9	1·3	111	24·7
Averages for years 1895-1904	..	..	..	..	..	..	..	..	..	99·9	36·6

The zymotic death-rate was due to 8 deaths from measles, 2 from scarlet fever, 2 from enteric fever, and 4 from diarrhoea.

Infectious Diseases.—Sixty cases of scarlet fever, 9 of diphtheria, 155 of measles, 4 of enteric fever, 2 of puerperal fever, and 6 of erysipelas were notified. Scarlet fever was very mild and extended throughout the whole district. High Ercall school was closed on account of measles.

Sewage Disposal.—Practically nothing further has been done to abate the nuisance from the sewage of the Wellington Urban District. There should be no further delay. A site has not yet been obtained for the disposal of Hadley sewage, and consequently several sanitary improvements are retarded.

“Pressure should be brought to bear upon the County Education Committee to induce them to carry out the whole of the suggested improvements and alterations to Lawley Schools, especially in respect to the flushing of the closets.”

Water Supply.—“The upper portions of the Parish of Wellington Rural are still without an adequate supply of water, they are dependent upon pools, draw wells and shallow wells.” Efforts are being made to obtain a supply from the Wellington Urban District. Notices have been served on owners of property in Hadley to obtain water from the Wellington Urban mains, and in most cases this has been done.

No improvement in the water supplies of Bolas and Rodington have yet been made.

Factory and Workshops Act, 1901.—All the workshops have been inspected and found fairly satisfactory.

WEM (Urban).

Medical Officer of Health JOHN DALLEWY, L.R.C.P., M.R.C.S.

<i>Area in Acres</i>	450
<i>Population at 1901 Census</i>	2,149
<i>Number of inhabited houses</i>	453
<i>Number of persons per house</i>	4·7

General Character of the District.

"The town of Wem is a well-built market town in the centre of a large agricultural district and is made up of a number of good houses, shops, cottages, and public buildings, amongst the latter is a new Market Hall, situated in High Street. The town is well paved and lighted by gas. The Union Workhouse is situated in the District. There are two cemeteries, only one of which is used. Drainage and water supply are provided."

Statistics.

The natural increase of the population during the year was 16. The population at the middle of 1905 is estimated at 2,226.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases.	Cancer.		
1905	15·3	·44	·89	·44	1·3	·89	1·3	2·7	0·0	96	23·3
Averages for years 1900-1904	16·1	..	..	..	..	..	..	..	..	97	27·1

The zymotic rate was due to one death from whooping cough.

Infantile Mortality.—There were 5 deaths under one year of age, and none of them were due to improper care or nourishment.

Infectious Disease.—Two cases of diphtheria, one of scarlet fever, and one of erysipelas were notified. The case of scarlet fever probably arose from infected clothing brought from a district where scarlet fever was prevalent. The origin of the cases of diphtheria was obscure.

Hospital Accommodation.—There is no Isolation Hospital for infectious diseases.

Disinfection.—The purchase of a steam disinfecter by the Urban and Rural Councils is under consideration.

House Accommodation.—Good. Bye-laws are in force with respect to new streets and buildings.

Drainage and Sewerage.—A scheme for the treatment of the sewage of the whole town is now under consideration, a partial scheme having been rejected by the Local Government Board after an inquiry in May.

Excrement Disposal.—Water closets .. 138 an increase of 25 on last year.
 Pan or box closets .. 372 " 5 "
 Earth closets .. 31 being 2 less than last year.

To avoid offence some absorbent material should be added to the contents of the pan closets, and the pans should be removed weekly and clean ones substituted. Some of these closets used by large households are often in a disgusting state.

Water Supply.—An abundant supply of excellent water is obtained from a well at Preston Brockhurst. 13,648,000 gallons were used at Wem, and 824,000 at Acton Reynald.

Factories and Workshops.—A register is kept and the places have been inspected and found satisfactory.

Lodging Houses.—There are two, inspected regularly and found satisfactory.

WEM (Rural).

<i>Medical Officer of Health</i> ..	..	JOHN DALLEWY, L.R.C.P., M.R.C.S.	
<i>Area in Acres</i> ..	..	..	52,001
<i>Population</i>	<i>at 1901 Census</i>	..	8,266
<i>Number of inhabited houses</i>	..	..	1,840
<i>Number of persons per house</i>	..	..	4·5

Statistics.

The natural increase of the population during the year was 106. The population at the middle of 1905 is estimated at 8,265.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1905	11·9	·12	·12	1·3	·0	·60	·84	1·7	·60	50	23·8
Averages for years 1895-1904	..	..	..	..	..	..	..	..	..	82	24·0

The zymotic death-rate was due to one death from diarrhœa.

Infectious Diseases.—Nine cases of diphtheria and membranous croup, 10 of scarlet fever, 8 of erysipelas, and 1 of enteric fever were notified. Five cases of scarlet fever in one house at Loppington were probably due to a case discharged from a fever hospital. The case of enteric fever was of doubtful origin, possibly imported. A case of diphtheria also might possibly be attributed to a discharged scarlet fever patient. An outbreak of six cases of diphtheria, with a considerable number of sore throats occurred amongst the children at Clive School. Bacteriological examination of the throats of the absentees showed that two of them had diphtheria bacilli in their throats, and one of these was probably responsible for the outbreak.

School Closure.—Three schools were closed on account of influenza, one on account of mumps, and one on account of diphtheria.

Disinfection is carried out under the supervision of the inspector.

Hospital Accommodation.—There is no hospital for the ordinary infectious diseases. There is a Joint Hospital for smallpox on Prees Heath.

House Accommodation.—Fairly good. Many of the smaller cottages are in a bad state of repair. The house-to-house inspection will be completed about June, 1906, and a report of the whole district will be made.

Water Supply.—Plans have been got out for Prees and Whixall but rejected by the inhabitants on account of cost. In other parts of the district the water supply has been satisfactory.

Sewerage and Drainage.—A scheme for the sewerage of Prees was got out but rejected by the inhabitants on account of cost.

Factory and Workshop Act.—A register is kept and inspections made regularly. Bakehouses, 12 : I have during the year personally inspected all of them and they conform to required regulations.

Slaughter-houses have been inspected and found satisfactory.

Dairies and Cowsheds.—A register is kept ; bye-laws have been made and will come into force on May 1st, 1906.

WENLOCK (Urban).

<i>Medical Officer of Health</i>				M. GEPP, L.R.C.P.E., D.P.H.			
<i>Area in Acres</i> .. .. .	..	..	..	..	..	..	22,657
<i>Population</i>	<i>at 1901 Census</i>			..	..	..	15,866
<i>Number of inhabited houses</i> .. .. .	..	..	..	..	..	..	3,568
<i>Number of persons per house</i> .. .. .	..	..	..	..	..	..	4.4

Physical Features and General Character of the District.

“The District comprises 22,657 acres, being the largest Borough in Area in the country. “This area is of very irregular outline, but is, roughly, some ten miles in greatest length, “from North to South-West, and has a mean breadth of some four miles, being narrowest “where the Severn, traversing the District from West to East, makes a natural division, the “part lying to the South of the river having three or four times the area of the northern part, “though with less than half the population.

“The District is for the most part a tableland lying at an elevation of from 400 to 600 “feet or more; the Severn forming a deep cutting through this elevated land, its banks “rising very steeply on either side from about 150 feet, O.D., at the water level to the general “height of about 500 feet, O.D. The Central and Eastern part, nearly half the area, lies “upon the coal measures. To the West the formation is the Wenlock and Ludlow beds of “Silurian age, forming a considerable part of the Southern Division, and extending also to a “limited extent across the river into the Northern division. Much of this ground lies in “ridges with intervening valleys at a height of from 600 to 800 feet, O.D. At the Southern “extremity the Old Red Sandstone occurs. The natural drainage is to the Severn, by small “streams falling as a rule steeply into the river within the District, but the Southern part “of the Southern area drains to the South by small streams which meet the Severn some “distance outside the District.

“The District is in large part industrial, the chief industries being coal and iron mining, “iron manufactures, and brick and tile works. There is also a large china factory. These “industries are confined to the Northern area together with a small part of the Southern area “near the river. The greater part of the Southern area is entirely rural and agricultural, and “thinly populated. For purposes of local administration the Borough is divided into four

"Wards, each having a separate Sanitary Committee acting as the Sanitary Authority. These
 "Wards, with their area, population and general character, are as follows:—

Ward.	Area in Acres.	Estimated Population 1905.	Situation.	General Character.	Death-rate per 1000, 1905.
Madeley	2841	8460	North of Severn ..	Urban and Industrial, Coal and Iron	15.5
Broseley	1991	3909	South of Severn ..	Urban and Industrial, Brick and Tile	13.8
Much Wenloek	8761	2245	South of Severn ..	Agricultural	14.3
Barrow	9064	1296	Both sides of Severn	Agricultural	15.4

"The populations here given are those estimated and corrected by the proportioned distribution of the population of the Madeley Workhouse and by addition of a proportion of the inmates of the County Asylum, the deaths in these institutions being also distributed in the several wards. Not much significance should be attached to the death-rates for a single year. The figures may, however, become of value for comparison as years go by."

Statistics.

The natural increase of the population during the year was 195. The population at the middle of 1905 is estimated at 15,904, and corrected for public institutions, 15,910.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1905	14.9	.63	.38	1.5	.63	1.3	.88	1.6	1.3	78	27.3
Averages for years 1897-1904	17.3	..	..	..	..	..	..	..	..	113	27.9

The general and infantile death-rates were the lowest in the last nine years.

Infantile Mortality.—Of the 34 deaths, 16 were due to digestive disturbances or wasting diseases, many of which probably could have been prevented by the adoption of better principles of feeding and rearing.

Infectious Disease.—Eighteen cases of scarlet fever, 18 of diphtheria, 3 of enteric fever, 10 of erysipelas and 2 of puerperal fever were notified. Twelve of the cases of diphtheria with four deaths originated in or near Madeley town between January and June. There has been a tendency to the recurrence of diphtheria in this locality for some years, suggesting some local condition favouring the spread of the disease under certain seasonal conditions. Some sanitary defect was found in six out of the eight infected houses. One of the cases of enteric fever was imported.

The Barrow School was closed on account of whooping cough.

Hospital Isolation.—An 8 bed iron hospital for smallpox at Broseley. There is no hospital for the other infectious diseases.

Disinfection.—There is no disinfecting station. The inspector disinfects rooms with a sprayer and solution of formic aldehyde. Disinfectants are provided in suitable cases.

House Accommodation.—Generally adequate in amount. The majority of the houses for the working class are old and exhibit defects due to age and faulty construction. In the absence of new building, systematic inspection is essential. Space about houses is generally adequate except in the lower parts of Ironbridge.

Overcrowding.—Seventeen notices have been served and where overcrowding has been due to lodgers or retention in a large family of wage-earning members, the Sanitary Committees have taken firm action. In some cases of large families the difficulty has been met by sending two or three of the children to sleep with relatives.

Sewerage and Drainage.—The contour of the district generally affords good drainage, and most houses have a drain of some kind. The sewers are, generally speaking, old and imperfect, and their outfall is directly to the Severn or into streams leading to the Severn.

“Improvements both in the sewers themselves, and in the disposal of sewage, are very desirable, and will become more so with increase of water carriage following upon the Water Supply Schemes carried out. In Much Wenlock and in Broseley and Madeley there appear to be no grave difficulties in the way of disposing of sewage by outfall works, but Ironbridge, by its situation and physical features presents one of the most difficult problems for efficient and economical sewerage. Jackfield, across the river, presents another problem but a smaller one.”

Excrement Disposal.—Mostly by privies with underground vaults. The Madeley Sanitary Committee have taken in hand the public scavenging of privies with very satisfactory results. Elsewhere the scavenging is effected by occupiers or owners. “Drained” privies should, as a rule, be converted to water-closets, but the sewers and their outfalls are not in a satisfactory state for the wholesale conversion of privies to water closets.

Removal and Disposal of House Refuse.—In Madeley by the Sanitary Committee; in the other divisions by the occupiers.

Water Supply.—*Broseley and Madeley Joint Scheme*, opened in 1902. The supply is from a deep well and boring into the Bunter Beds at Harrington. Seventy-five houses in Madeley and 15 in Broseley Wood have been connected during the year, and several standpipes erected. Jackfield Schools are now supplied from the main.

Much Wenlock is supplied from a deep well in the shale measures of the Wenlock Limestone. Water is laid on to most of the houses. The “spout” supply in Stretton Road has been improved.

Rowton is supplied from a spring, the water being raised to a reservoir by a ram.

The great advantage of properly storing rain water where clean water has to be carried some distance is pointed out.

Bye-laws are now in force with regard to Common Lodging-houses, and Regulations for Dairies, Cowsheds and Milkshops.

WHITCHURCH (Urban).

<i>Medical Officer of Health</i>	M. GEPP, L.R.C.P.E., D.P.H.	
<i>Area in Acres</i> .. .. .	.. .. .	4,784
<i>Population</i>	at 1901 Census	5,221
<i>Number of inhabited houses</i> .. .. .	.. .. .	1,129
<i>Number of persons per house</i> .. .. .	.. .. .	4.6

General Character of the District.

"The District comprises 4,496 acres, lying at an elevation of from some 270 to some 350 feet above sea-level, and upon the eastern extremity of the Dee Watershed. The sub-soil is the Red Marl of the New Red Sandstone. The fall of the ground is from south and east to west and north-west, and the natural drainage is by small tributary brooks of the Dee, leaving the District towards the north-west. The town occupies roughly the centre and higher part of the District, and is compact and old, with extensions of more recent building along some of the main roads radiating from the town. The surrounding parts of the District are entirely rural and agricultural, and extend to a distance of between two and three miles north-east and south-west of the town, but to not more than about a mile to north-west and south-east. The town is a market and residential town, and the land around is extensively used for grazing and dairy-farming."

Statistics.

The natural increase of the population during the year was 79. The population at the middle of 1905 is estimated at 5,344, and corrected for public institutions, 5,290.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases	Cancer.		
1905	12·3	·38	·57	·94	·0	1·5	·19	·94	·38	97	27·2
Averages for years 1897-1904	15·2	..	..	..	..	..	..	..	..	104	26·3

The zymotic death-rate was due to 1 death from scarlet fever and one from diarrhœa.

Infantile Mortality.—Seven out of the fourteen deaths were probably due to errors of feeding and management. "The greatest good is I think to be looked for in the education of girls in the Elementary Schools in matters of hygiene and infant management."

Infectious Diseases.—Nineteen cases of scarlet fever, 1 of diphtheria, 1 of enteric fever, 2 of erysipelas, and 2 of puerperal fever, were notified. Thirteen of the cases of scarlet fever occurred in the last quarter. The origin of the cases of diphtheria and enteric fever was obscure. The two cases of puerperal fever had been attended by midwives.

Grindley Brook Schools were closed in February on account of mumps.

Hospital Isolation.—There is a joint hospital for smallpox on Prees Heath with 8 beds, a caretaker's cottage, and nurse's apartments. During the year a verandah was added to the house and a covered way made from house to the hospital.

There is no isolation hospital for the infectious diseases.

Disinfection.—The Sanitary Inspector disinfects rooms by spraying. Disinfectants are supplied in suitable cases

House Accommodation.—Adequate in amount. There is a considerable amount of new building along the roads radiating from the town. In the town there are a good many small old houses, of faulty construction and incapable of being made into satisfactory dwellings. These still remain in occupation. In the old yards there are a good many houses without through ventilation and with confined surroundings.

The house-to-house inspection is going steadily forward. The number of houses inspected in the routine house-to-house inspection was 507.

Three houses in Sherrymill were closed by the owner on a representation from the Council that they were unfit for habitation.

Supervision of New Buildings.—Twenty-eight new houses were erected during the year, plans having been submitted to the Council under the Building Bye-laws.

Sewerage and Drainage.—The town is well sewered. During the year, 5 new ventilating shafts have been erected, making 21 in all. The flushing of the main sewer has been recently improved. A man is now employed at the outfall works two days a week cleaning out carriers, etc., and the Surveyor makes a monthly inspection.

The number of houses connected to the sewers during the year was 34.

Excrement Disposal.—Of the houses within the limits of the public water supply about 780 have water closets and 240 privies. Nineteen privies were converted during the year.

Removal and Disposal of House Refuse.—House refuse is removed by the occupiers, or by contractors engaged by the Council whose services the householder can have on payment. Dr. Gepp suggests that a systematic regular collection of house refuse should be undertaken by the Council. It is not suggested that this should include the scavenging of privies.

Water Supply.—The town has a public supply laid on to the houses. The water is derived in part from shallow wells sunk into the drift in grass land, and part from three new bore holes through clay into a bed of sand.

The water is softened to a hardness of 7° Clark's Scale before being pumped to the service reservoir.

56 houses were connected to the mains during the year.

Slaughter-houses, Common Lodging-houses, Cowsheds, Dairies and Milkshops are regularly inspected by the Sanitary Inspector and have been improved in several ways.

Slaughter-houses, 7 on register, satisfactory.

Common Lodging-houses.—4 on Register—kept clean.

Dairies, Cowsheds, and Milkshops.—28 on Register—inspected quarterly.

Bye-laws.—New Bye-laws for Tents, Vans, etc., used as habitations, have been adopted.

WHITCHURCH (Rural).

<i>Medical Officer of Health</i>				M. GEPP, L.R.C.P.E., D.P.H.			
<i>Area in Acres</i> .. .. .	..	..	..	..	..	..	11,701
<i>Population</i>			<i>at 1901 Census</i>	..	..	..	1,924
<i>Number of inhabited houses</i> .. .. .			„	..	..	..	424
<i>Number of persons per house</i> .. .. .			„	..	..	..	4.5

Physical Features and General Character of the District.

"The District comprises 11,989 acres of agricultural land lying on the northern border of the County. The general elevation is from 300 to 400 feet, O.D., the contour being slightly undulating. The sub-soil is the Red Marl of the New Red Sandstone, with the exception of a small area in the South-Eastern part, where an outlier of the Lias occurs at Ightfield. The natural drainage is by small streams to North and South, the water partings between the Weaver, Dee, and Severn systems crossing the District. The District is entirely rural in character, and the population scattered, the small villages of Tilstock, Ash, and Ightfield, comprising the main collections of houses. The land is mainly employed for grazing and dairy-farming. The District is naturally very healthy, the average death-rates for preceding years being very favourable."

Statistics.

The natural increase of the population during the year was 18. The population at the middle of 1905 is estimated at 1902, and corrected for public institutions, 1,920.

Period.	Death-rates per 1000 population from									Infant Death-rate per 1000 Births.	Birth-rate.
	All Causes.	Seven Chief Zymotic Diseases.	Epidemic Influenza.	Phthisis.	Other Tubercular Diseases.	Bronchitis.	Pneumonia.	Heart Diseases.	Cancer.		
1905	13·5	0·0	0·0	·52	1·0	·52	1·0	3·1	1·5	95	21·9
Averages for years 1897-1904	13·1	..	..	..	..	..	..	..	..	71	25·9

Infectious Disease.—Two untraced cases of scarlet fever were the only cases notified.

Hospital Accommodation.—For smallpox the joint Hospital on Prees Higher Heath. There is no accommodation for other diseases.

Disinfection by the Sanitary Inspector with a spraying apparatus and a formalin lamp.

House Accommodation on the whole adequate in amount. A good many are old and exhibit defects of age and faulty construction. A systematic house-to-house inspection is in progress.

New Buildings.—Very few new houses are built. The Model Bye-laws are in force.

Sewerage and Drainage.—In Tilstock a good many houses have been connected to road water drains which discharge on land or into the brook. The condition of the drains should receive attention in the house-to-house inspection. Proceedings were taken for the abatement of a drainage nuisance.

Excrement Disposal.—Mostly by privies with sunk pits. They should be kept in good repair, and where badly situated should be converted to pail closets.

Water Supply.—Broughall, Tilstock, and Ash Magna have supplies from safe wells provided by the Council. Ightfield has had a public pump for many years. Dr. Gepp analysed six samples of water from farm houses and cottage wells in different parts of the district, and he only found one as passably safe. He suggests that wells of this description could be made safe for a sum of £5, —£10, and that the Council may have power to expend up to £8 13s. 4d. in improving an old well, and to recover from the owner. In the case of new houses he advises that no certificate be granted unless the situation of the well is approved and the well constructed so as to be water-tight to a depth of 8 feet at least.

Bye-laws are in force in the district relating to Cleansing of Footways, Privies, Ashpits, etc. ; Common Lodging houses, Nuisances, and New Streets and Buildings.

Dairies and Cowsheds are looked after by the Sanitary Inspector according to the Model Regulations.

